

N-α-Fmoc-lysine (2)

N-α-Fmoc-Lys(N-ε-tBoc) (1)

Fig. 1a

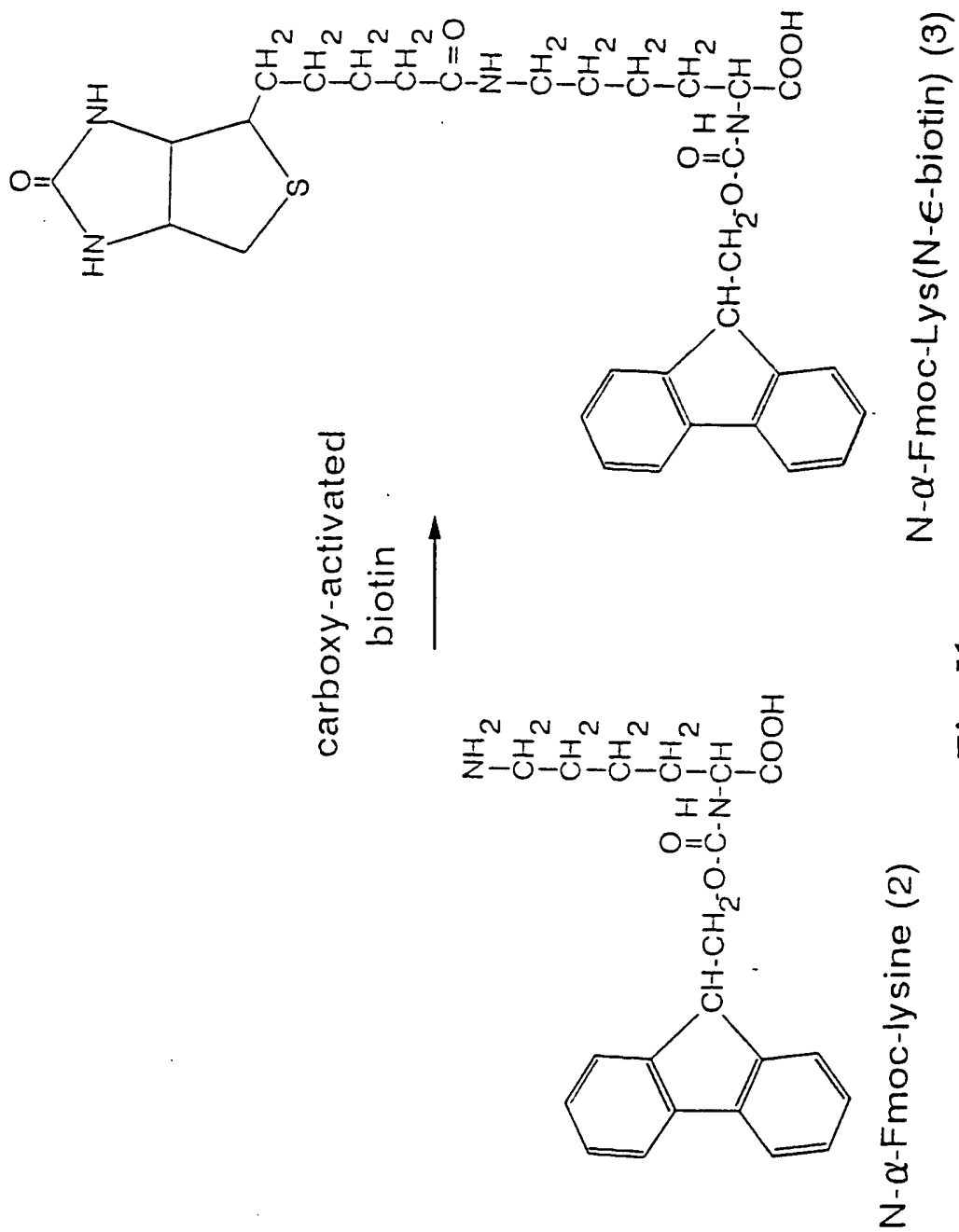


Fig. 1b

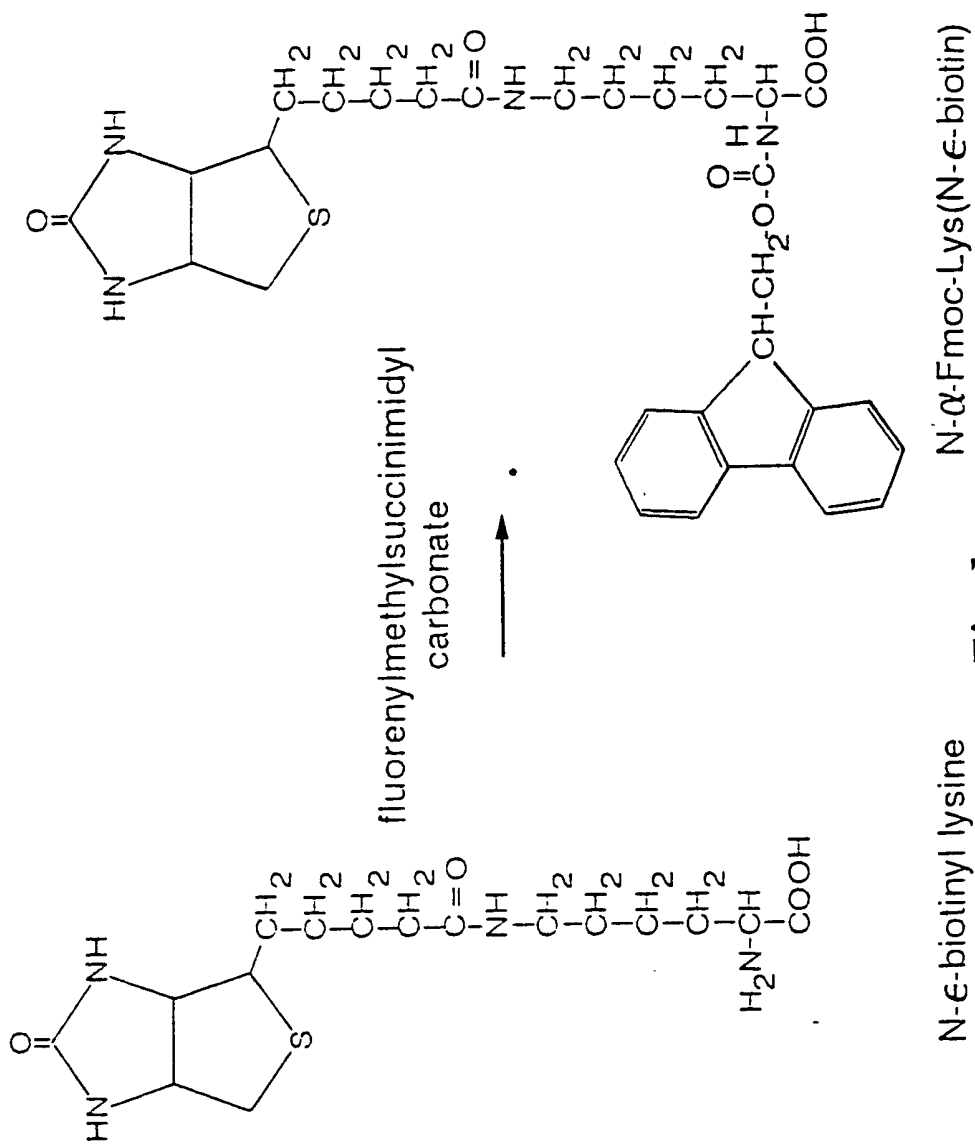


Fig. 1c

Fig. 2a

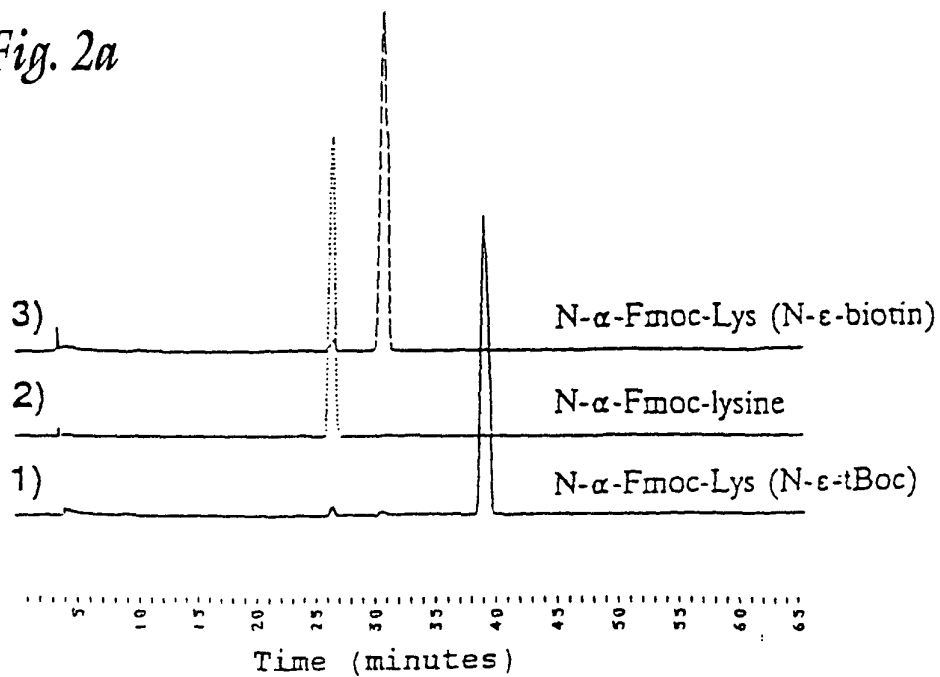
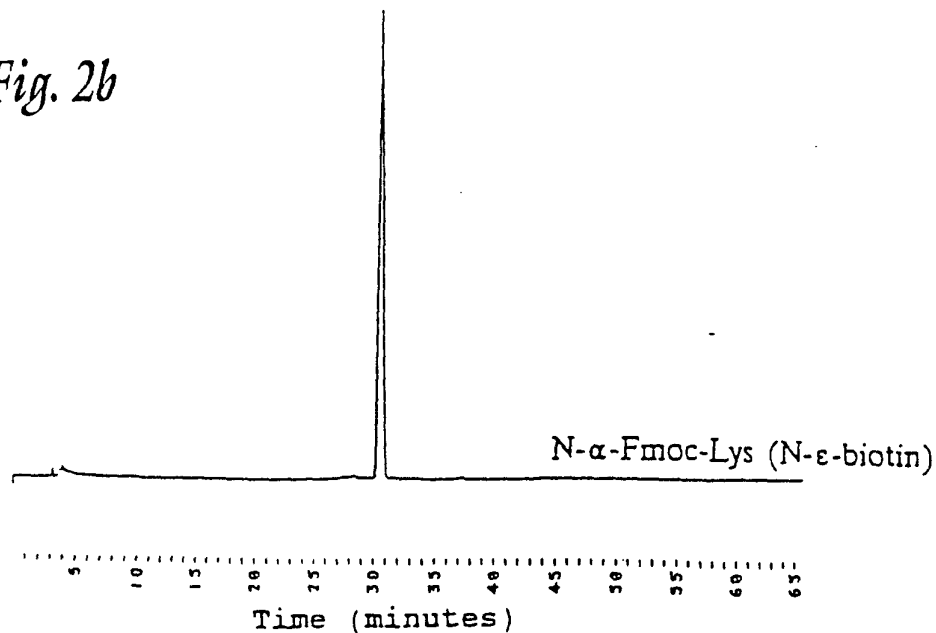
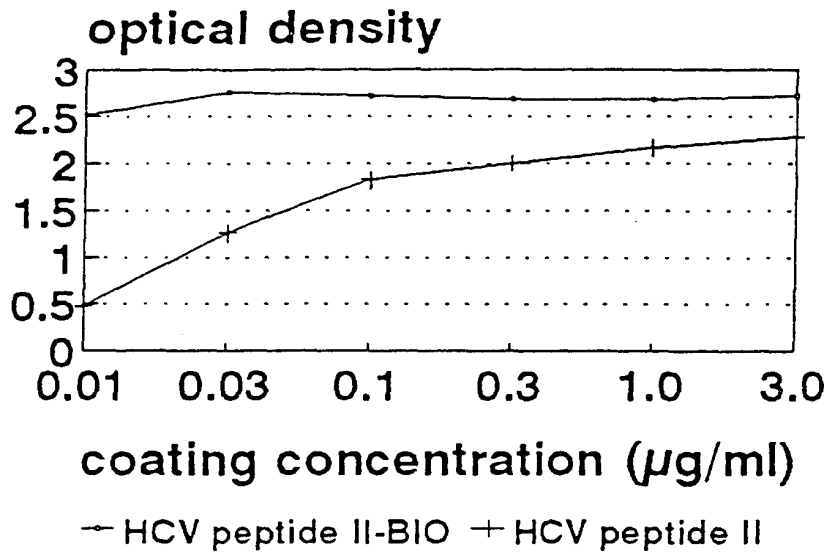


Fig. 2b



sample 8320



sample 8242

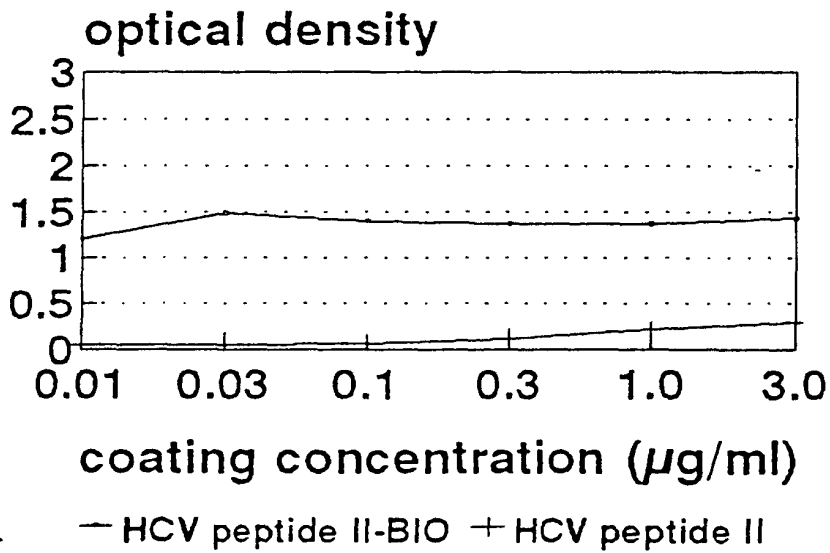
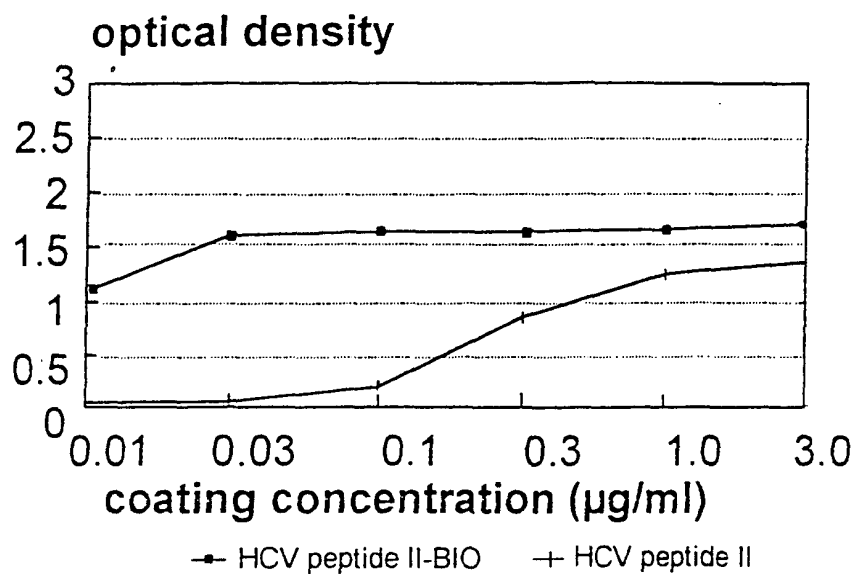


Fig. 3a-1

sample 8243



sample 8318

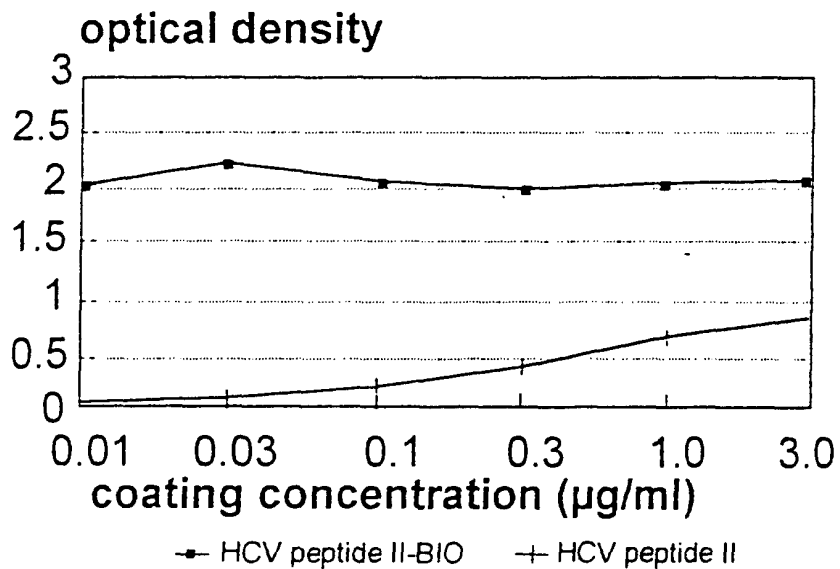
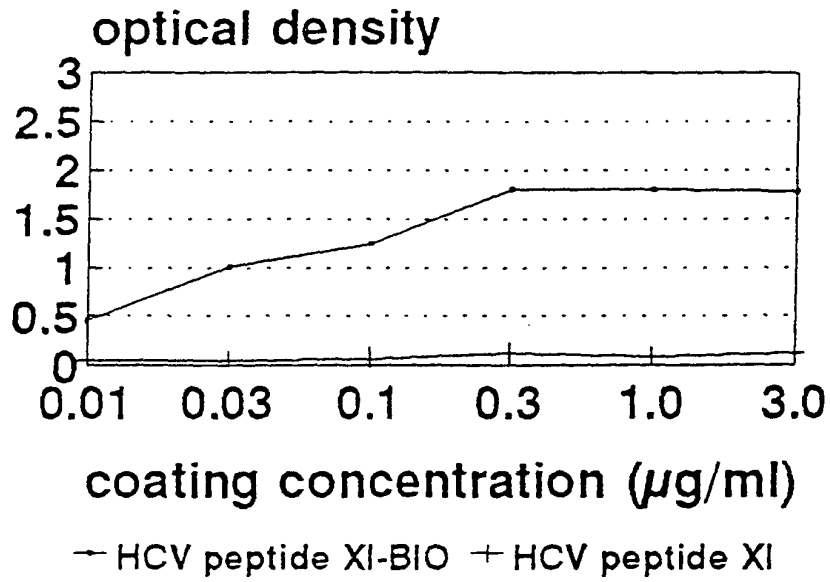


Fig. 3a-2

sample 8320



sample 8326

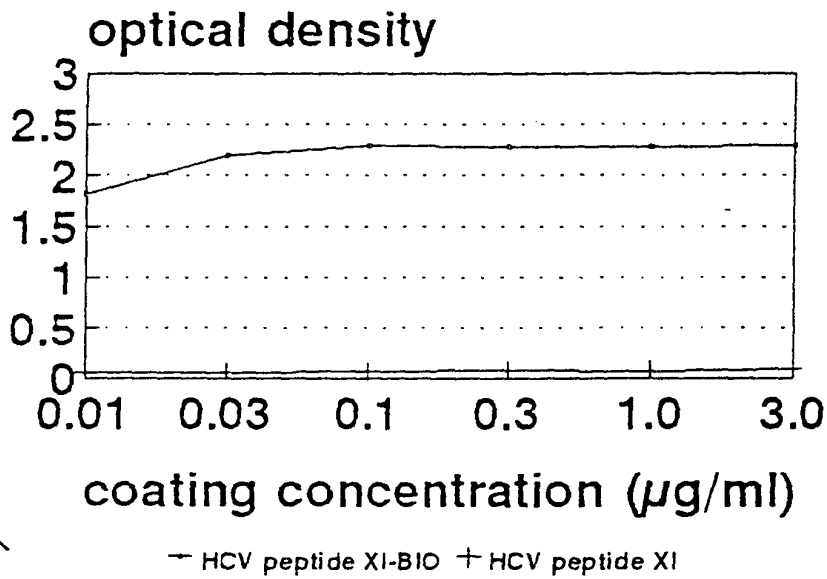
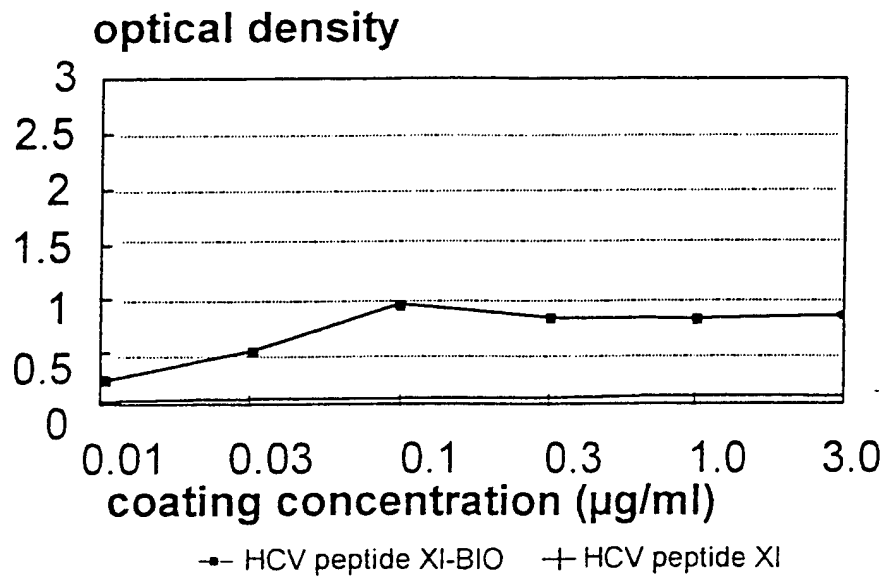


Fig. 3b-1

sample 8242



sample 8243

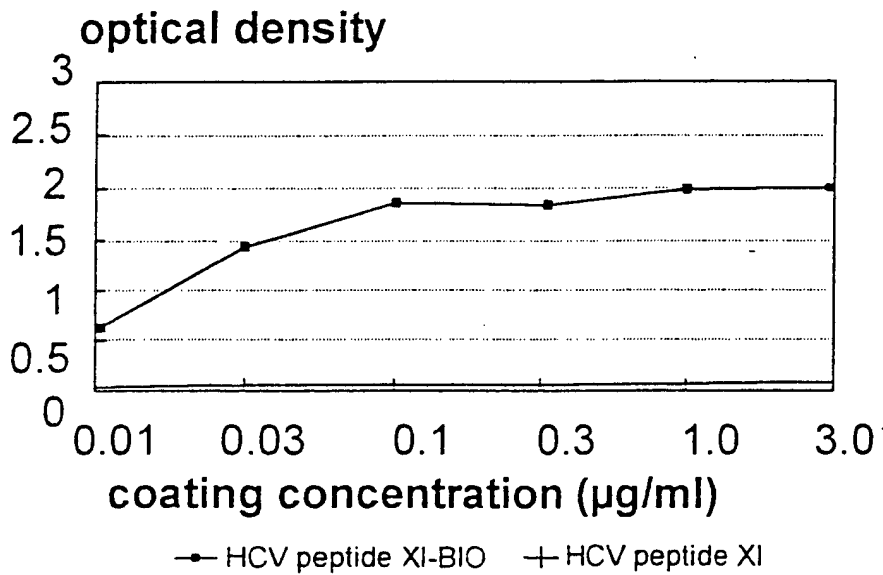
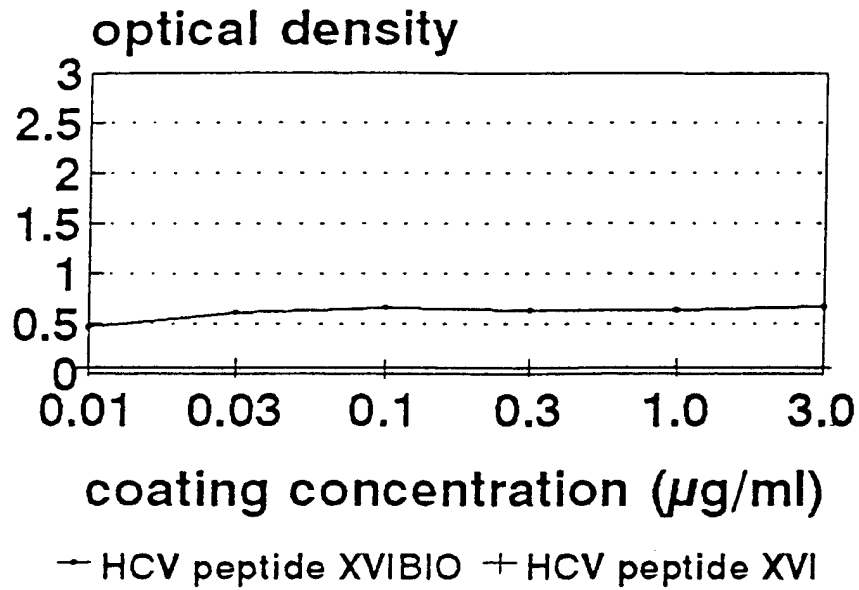


Fig. 3b-2

sample 8243



sample 8318

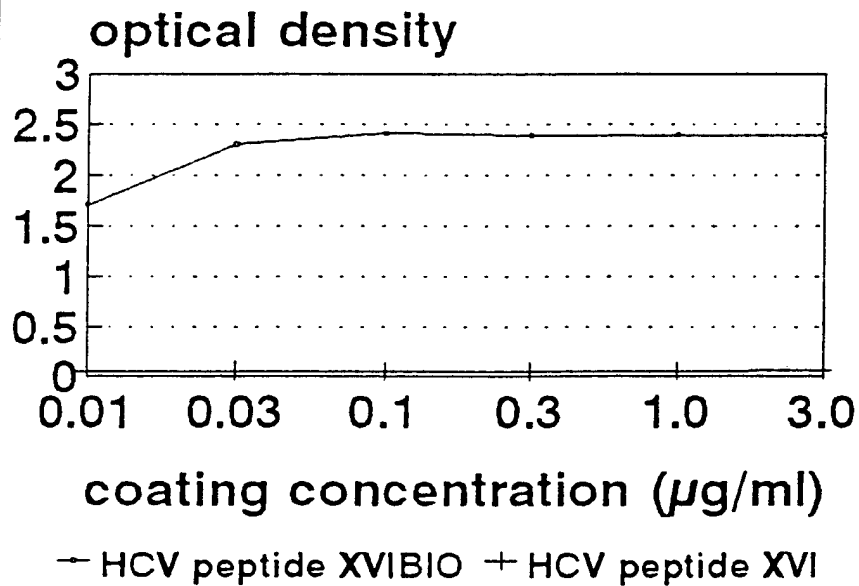
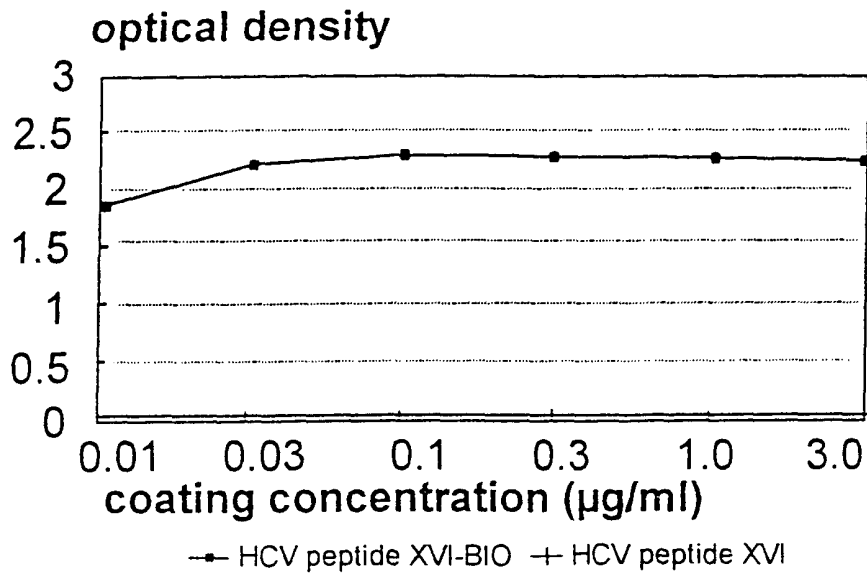


Fig. 3c-1

sample 8326



sample 8242

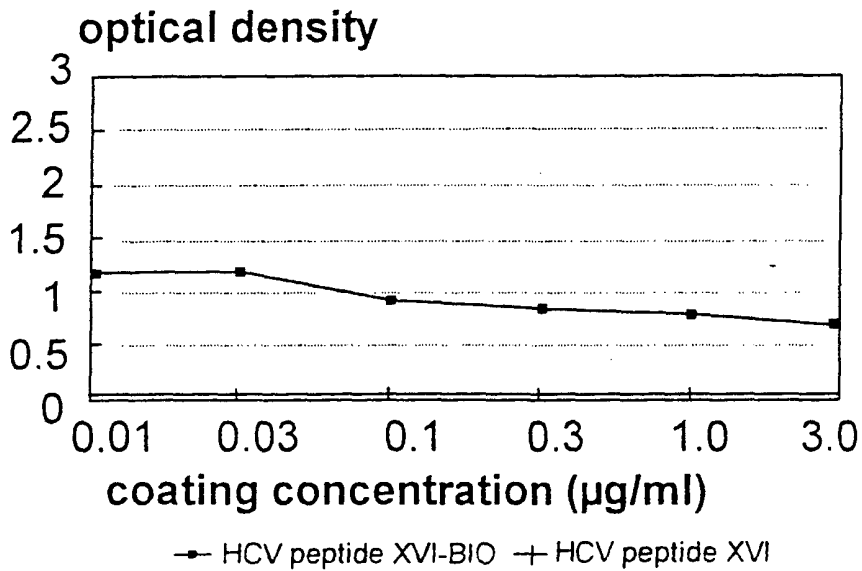
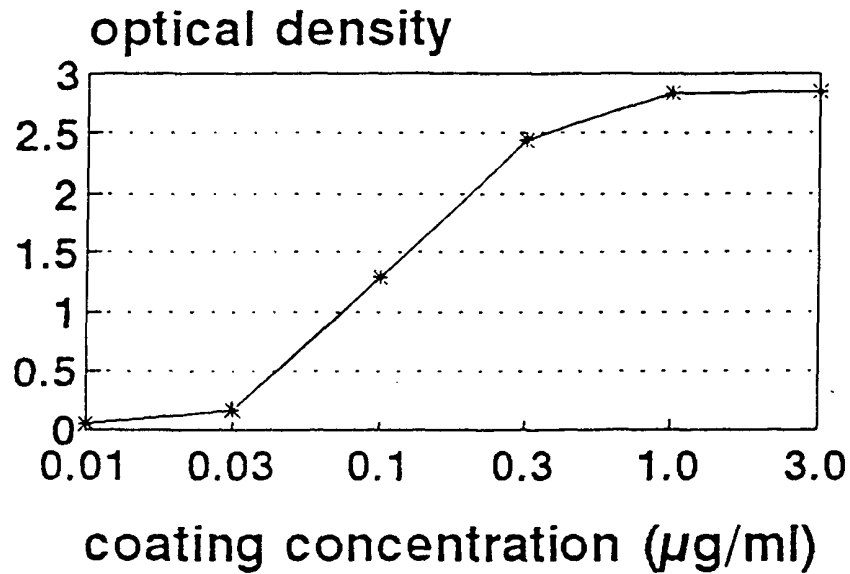


Fig. 3c-2

HCV peptide II-BIO



HCV peptide XI-BIO

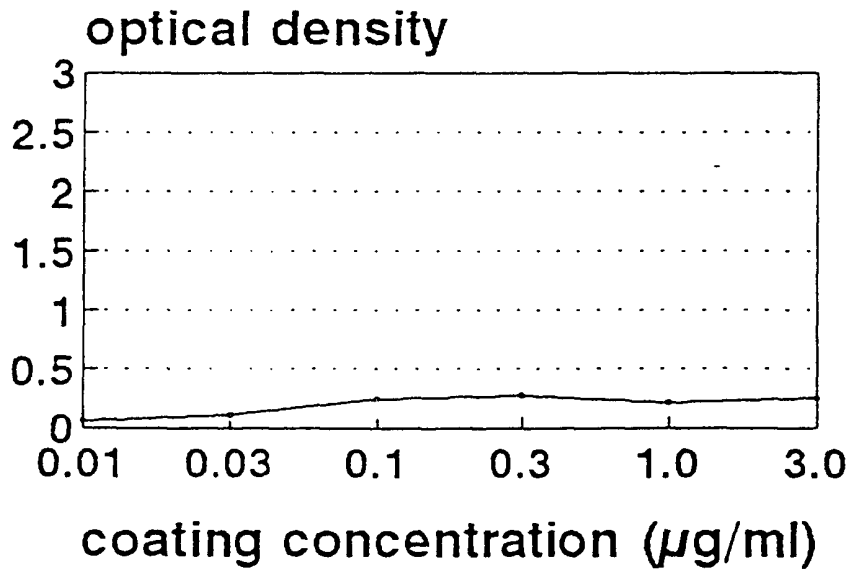


Fig. 4a

HCV peptide XVI-BIO

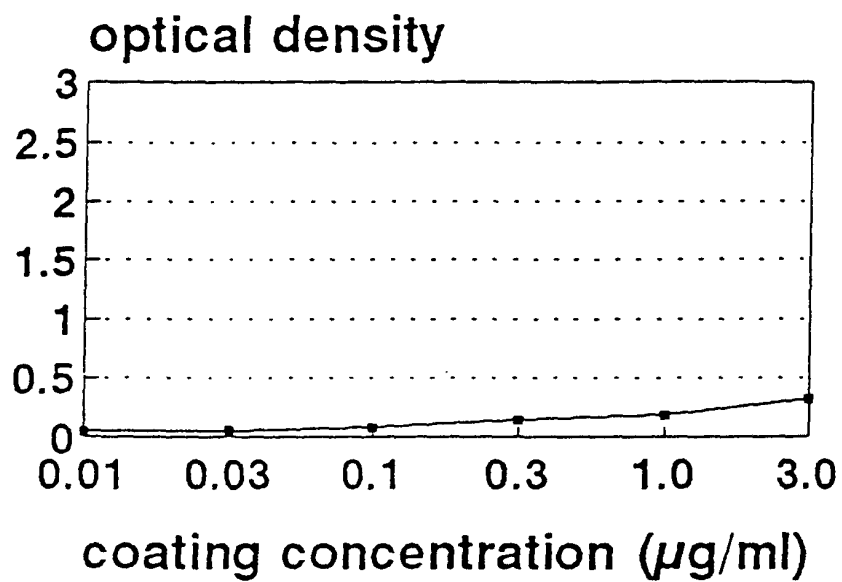
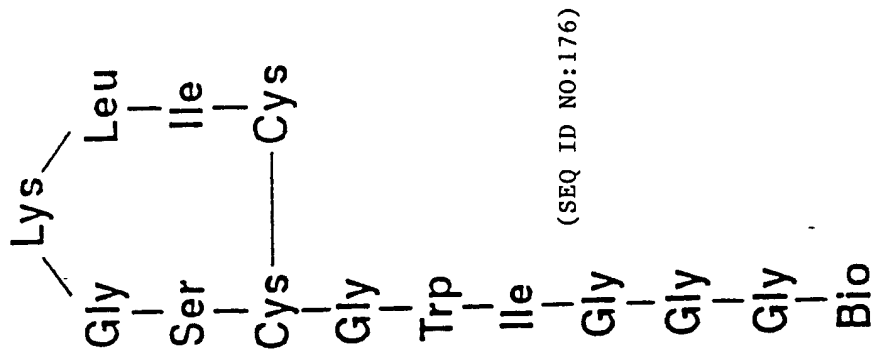


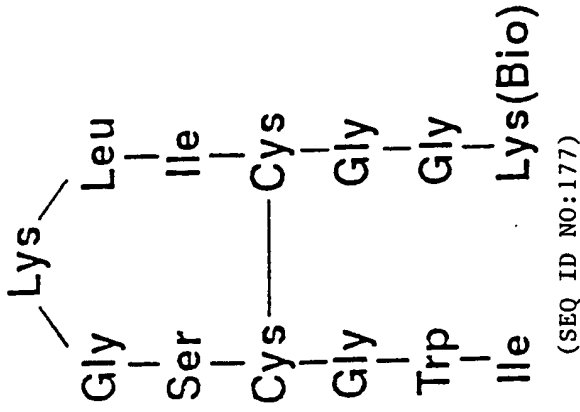
Fig. 4b

Fig. 5a



N-terminally biotinylated
 TM peptide

Fig. 5b



C-terminally biotinylated
 TM peptide

Fig. 6a-1

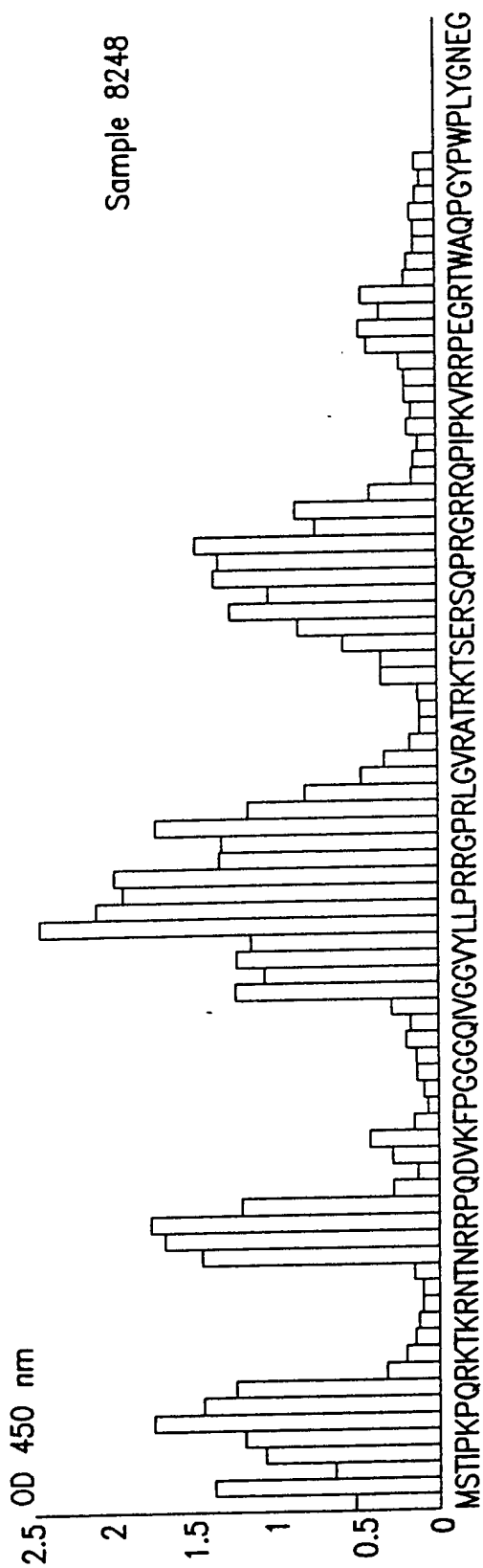
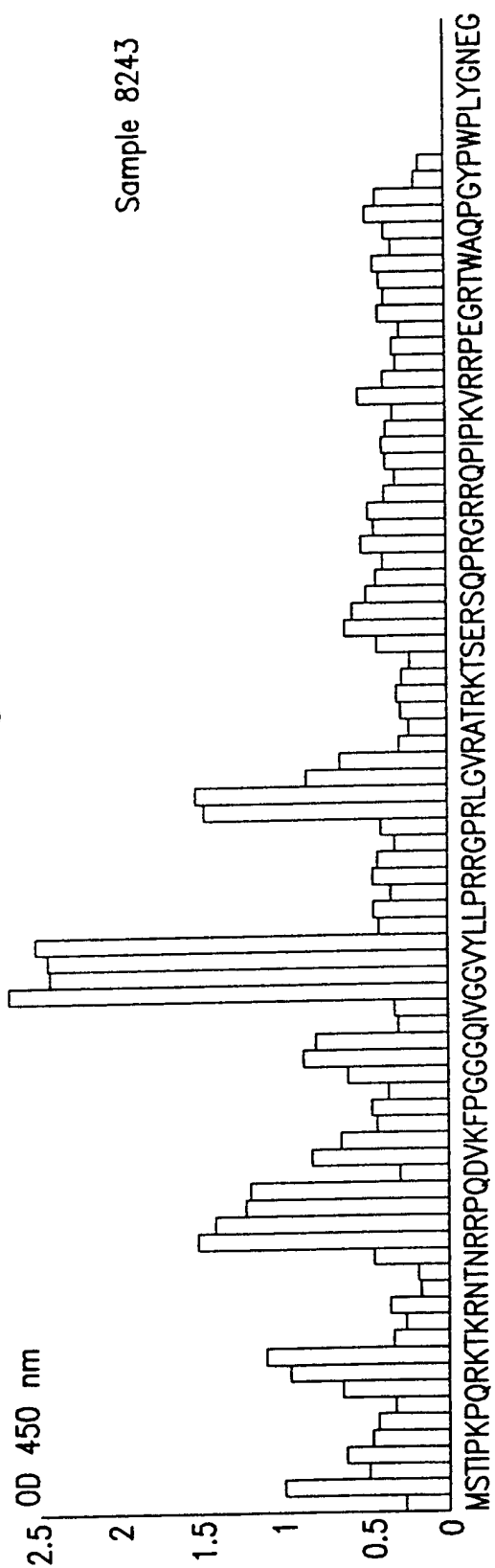


Fig. 6a-2

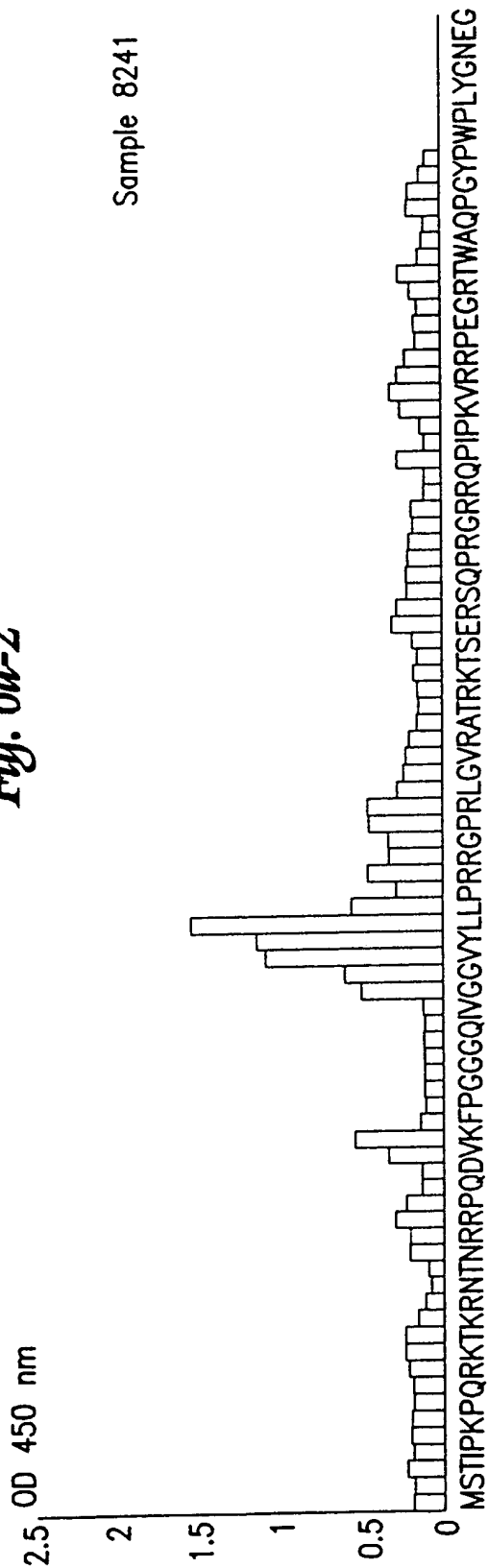


Fig. 6a-3

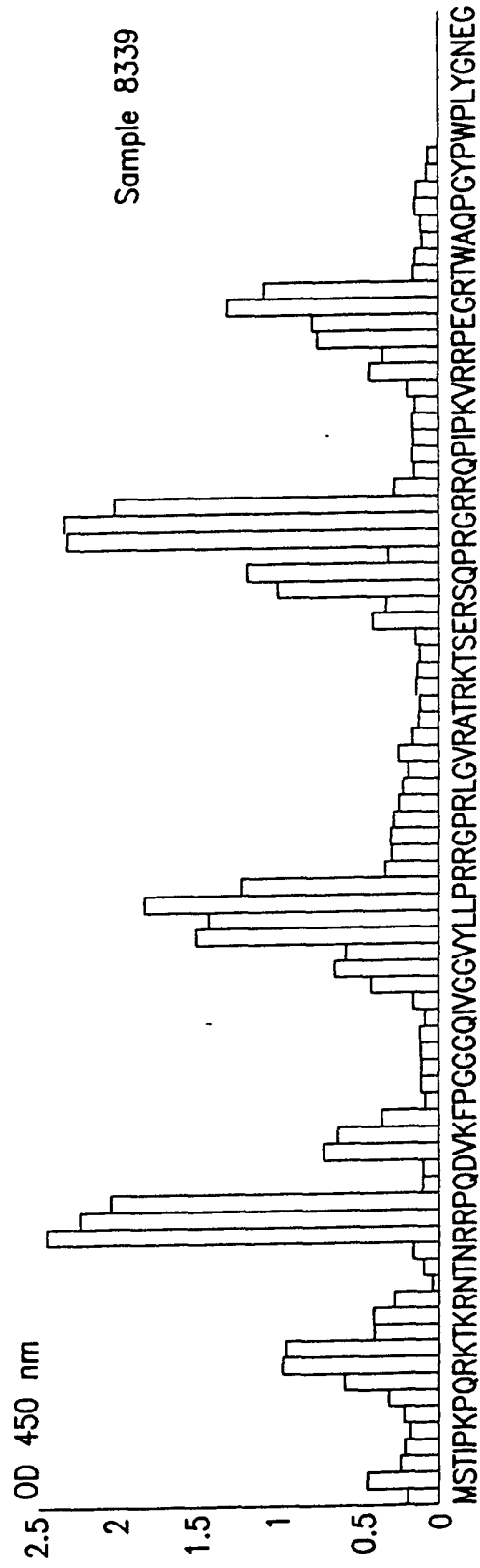
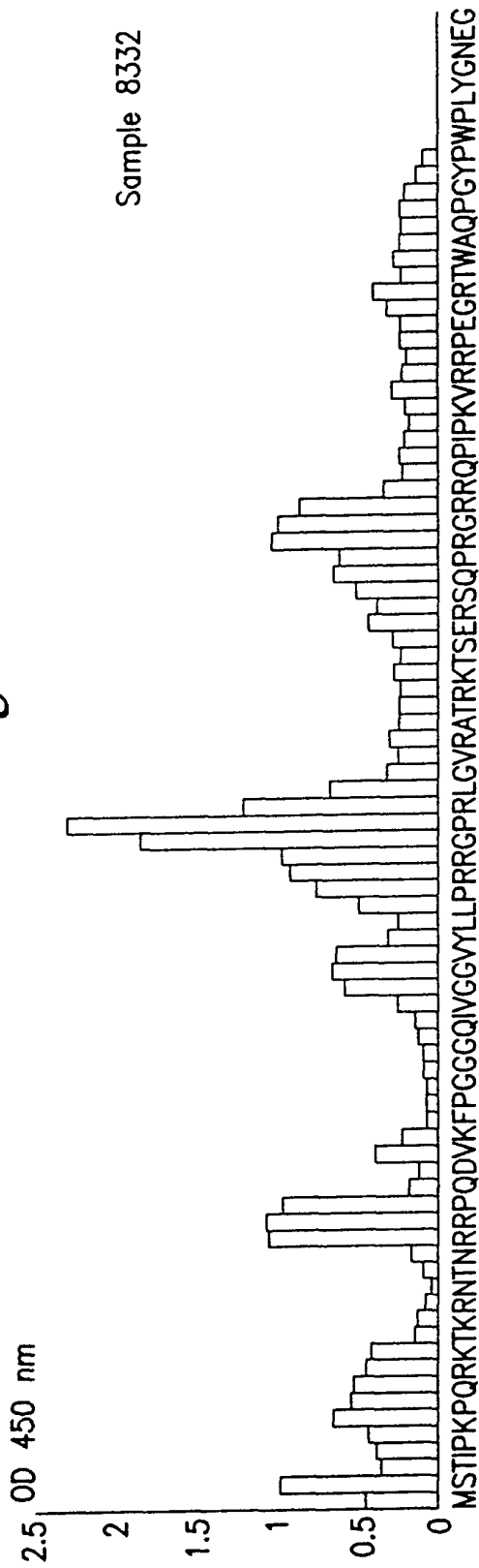


Fig. 6a-4

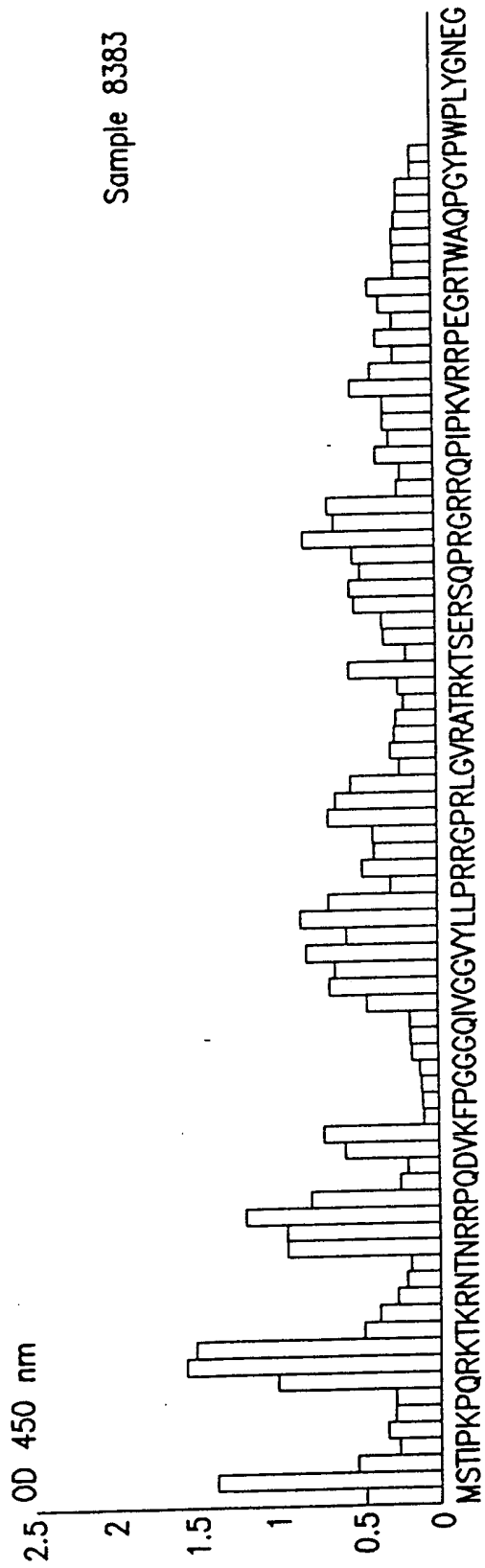
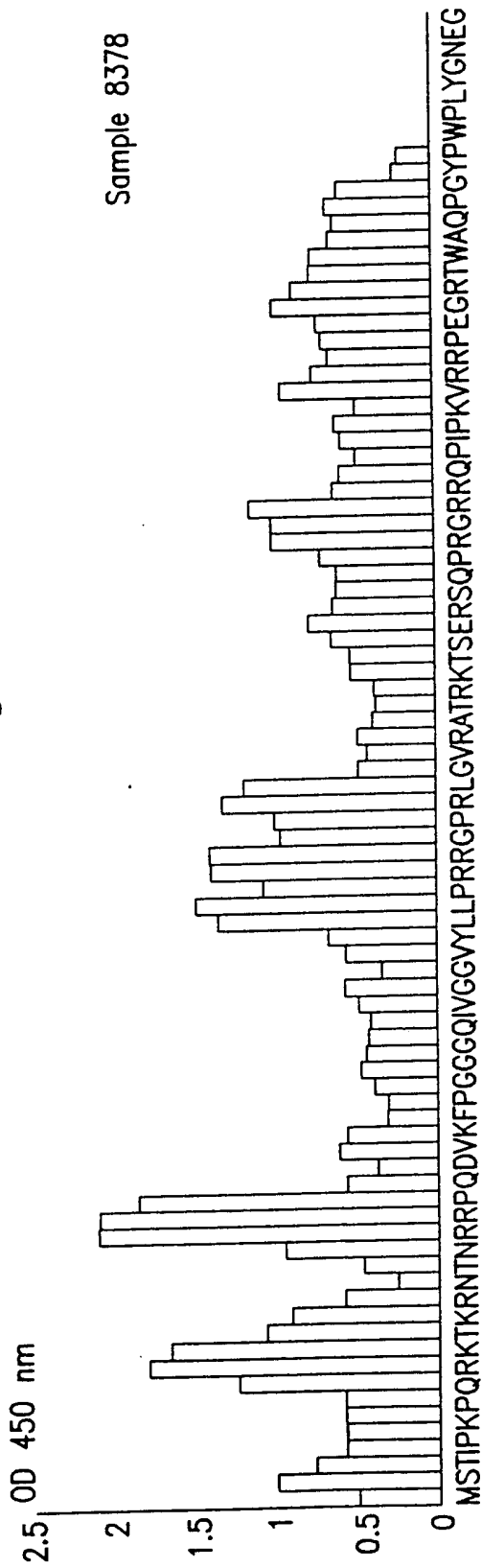


Fig. 6a-5

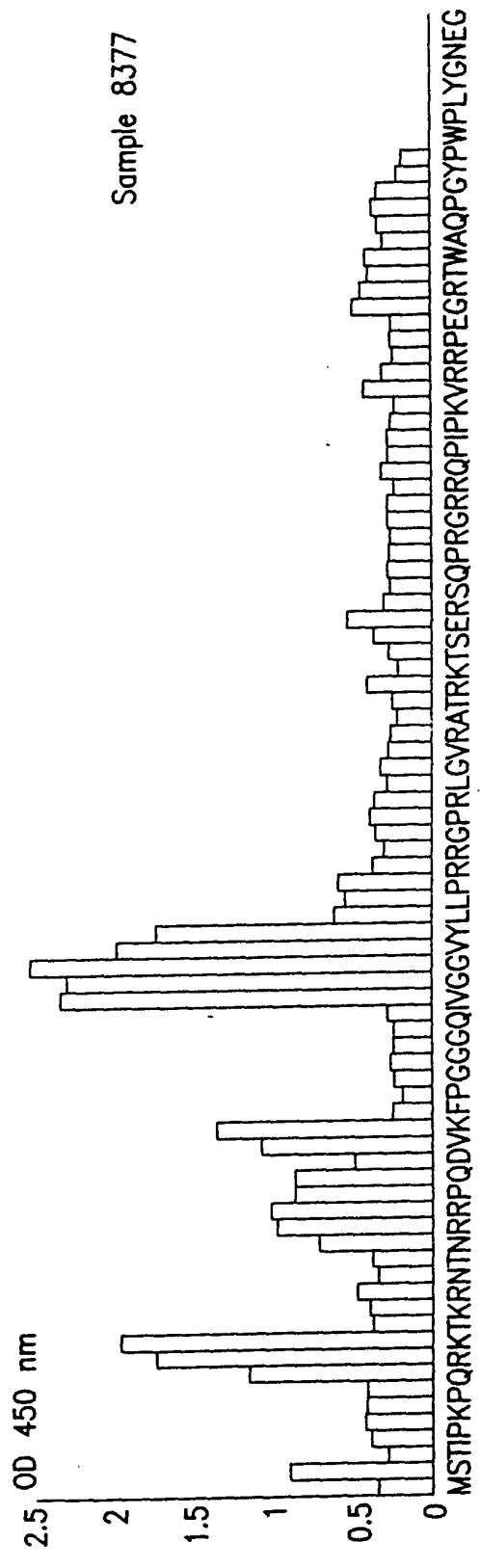
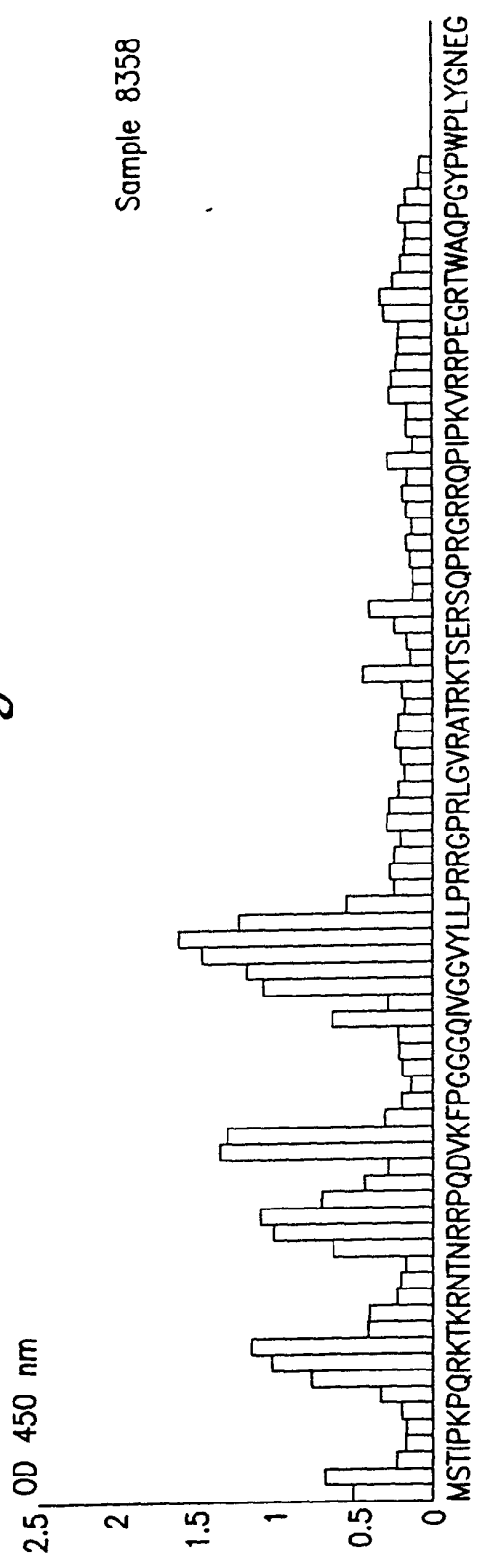


Fig. 6b-1

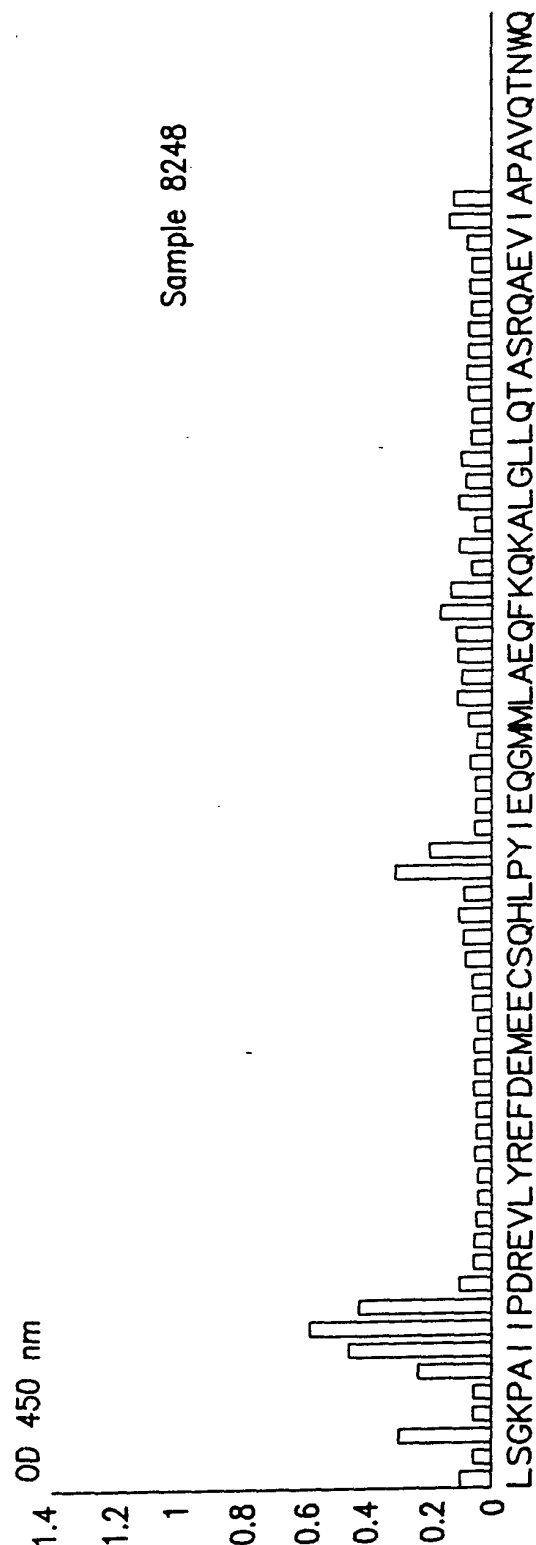
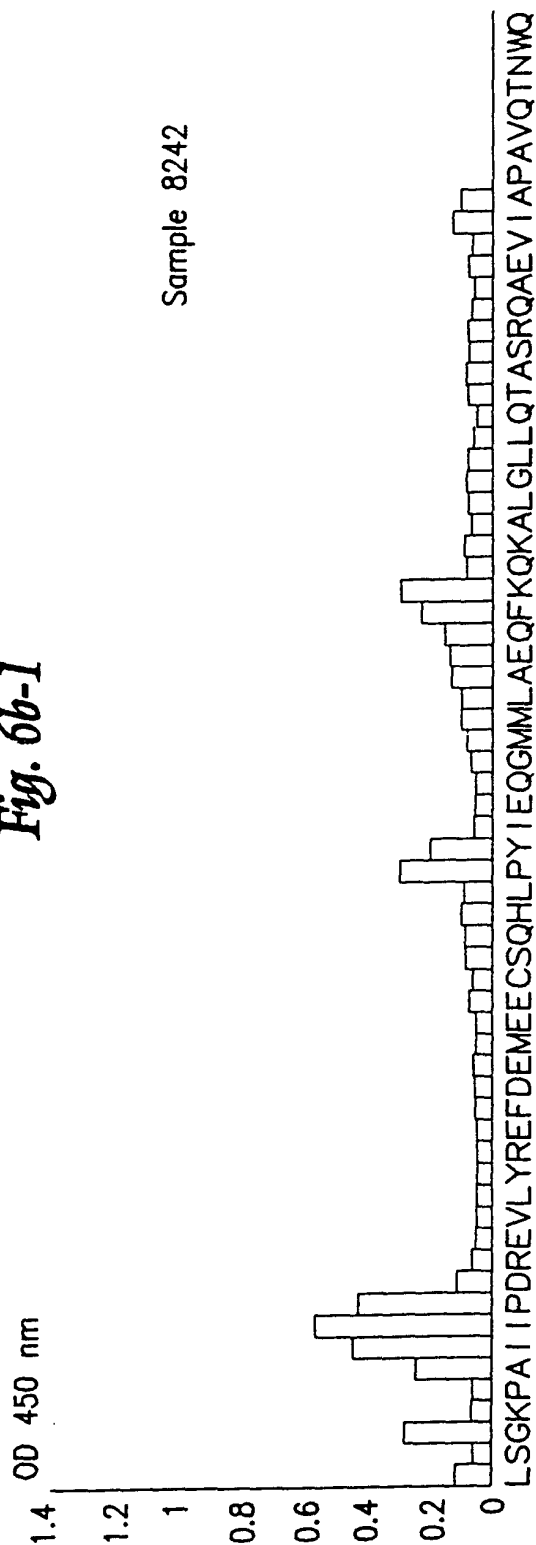


Fig. 6b-2

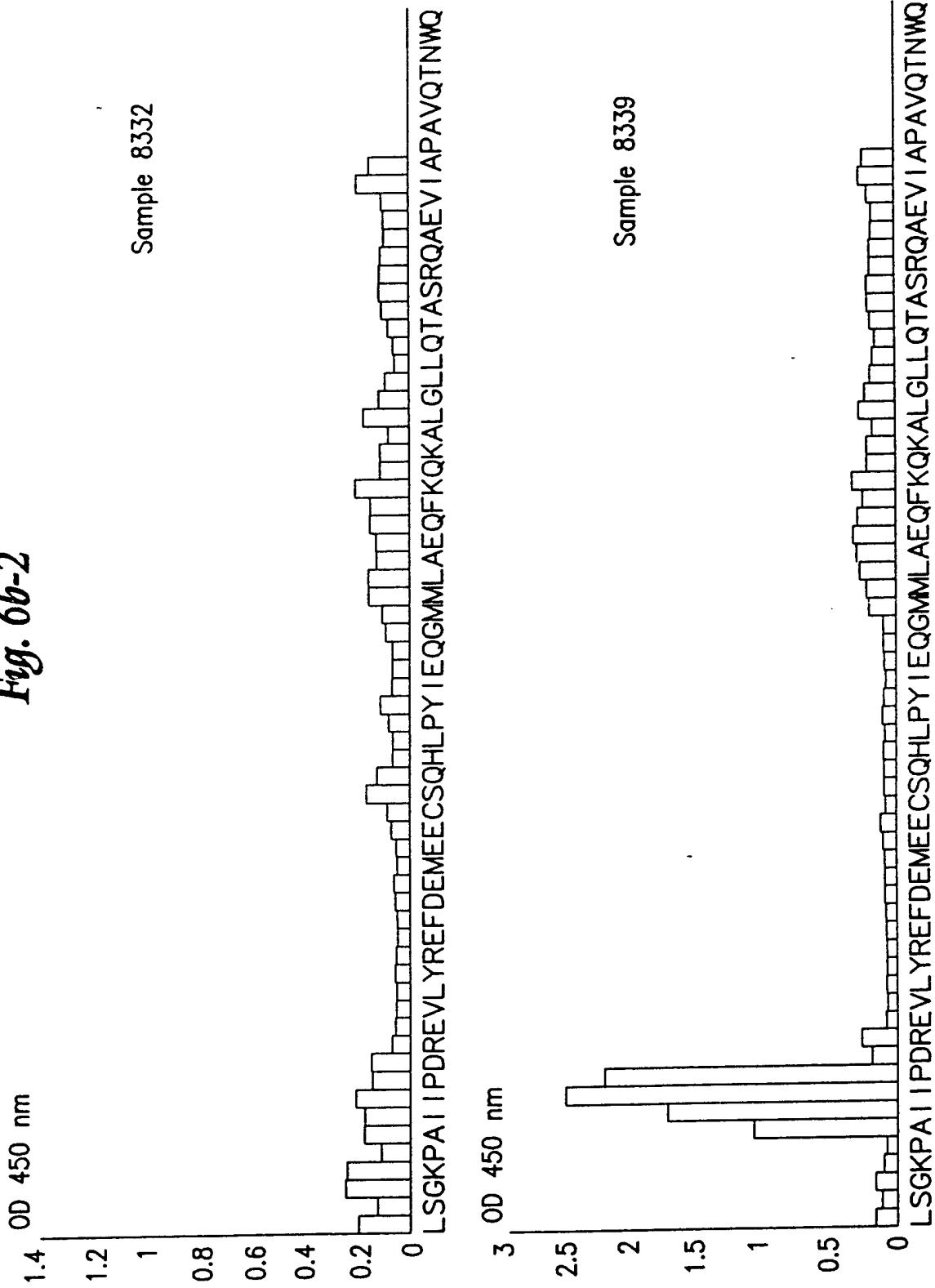


Fig. 6b-3

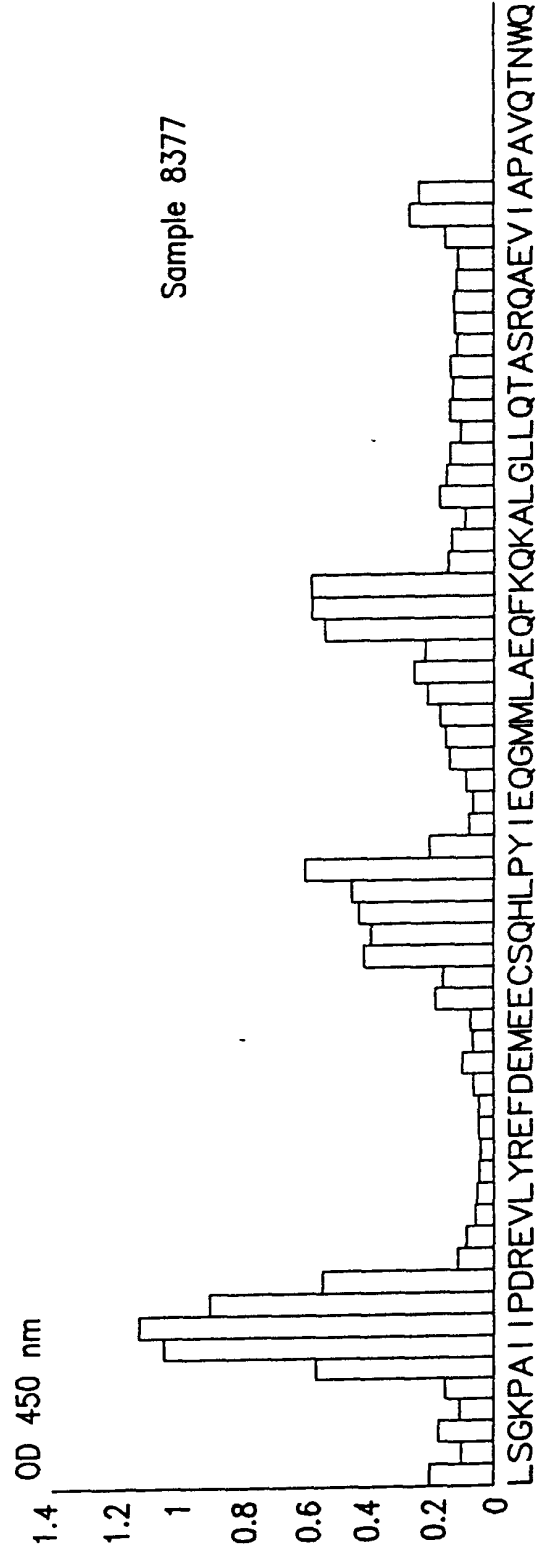
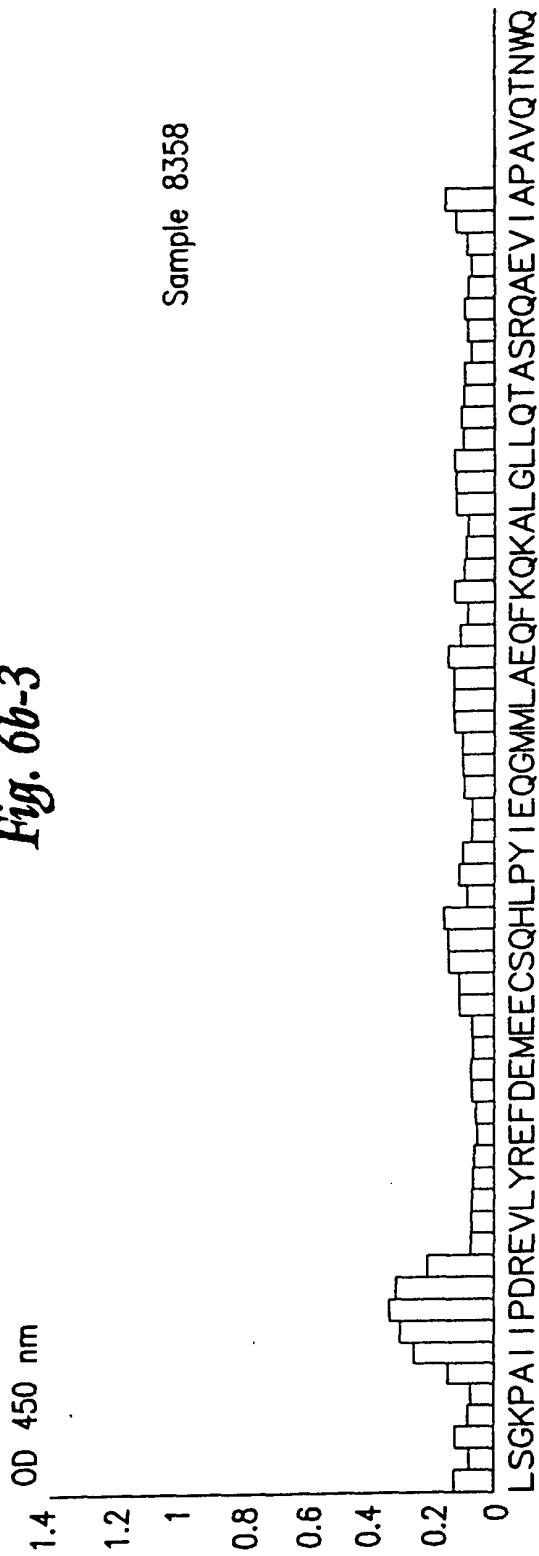


Fig. 6b-4

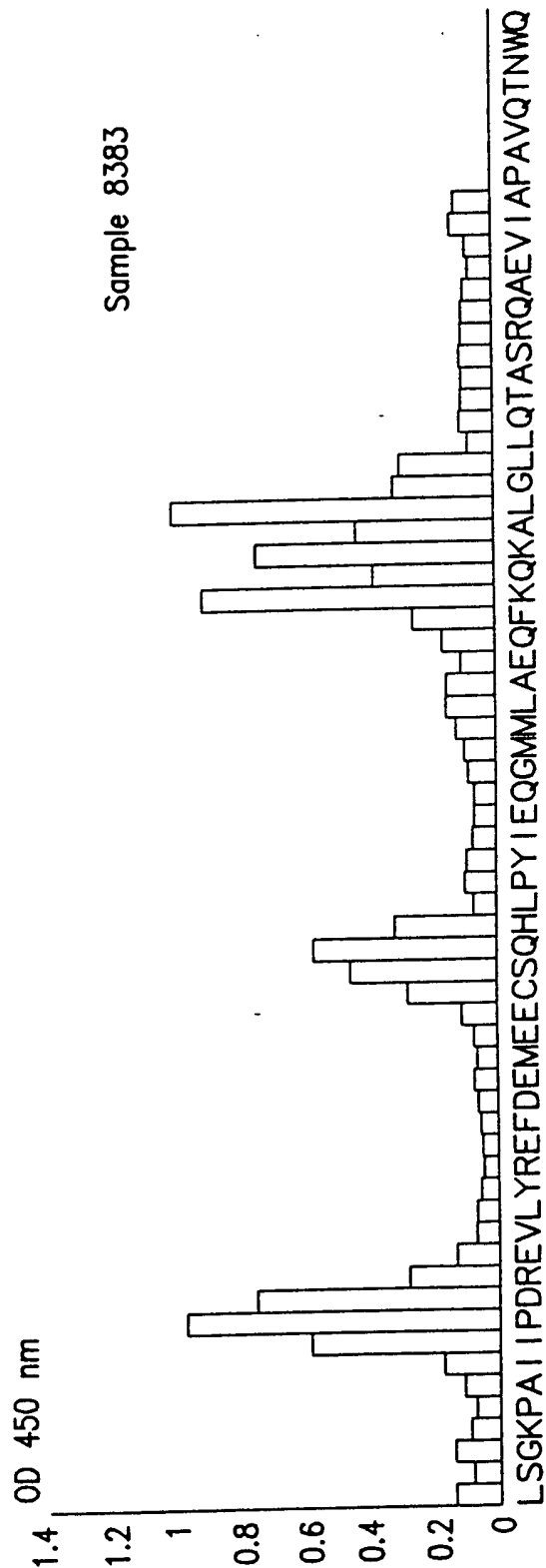
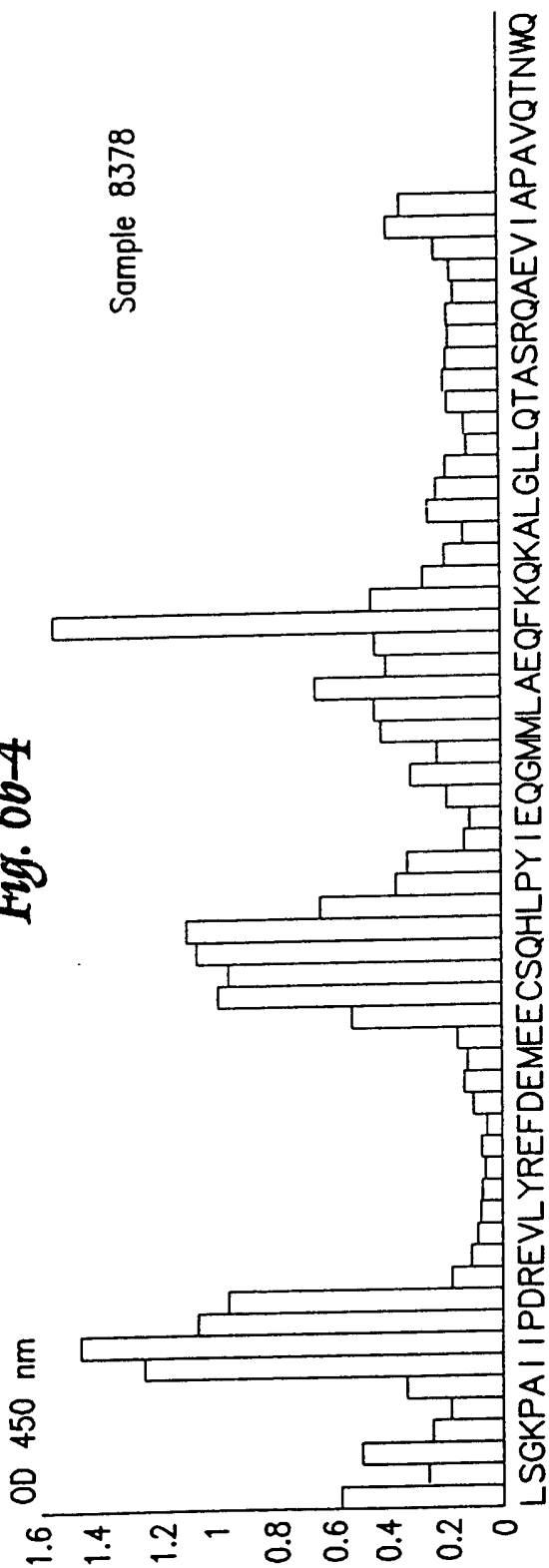
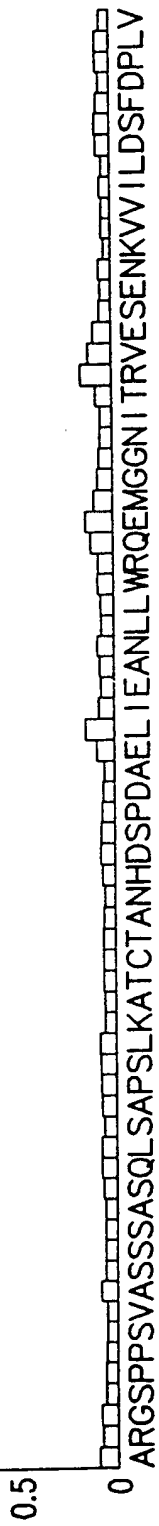




Fig. 6c-1

OD 450 nm

Sample 8242



OD 450 nm

Sample 8242 (continued)

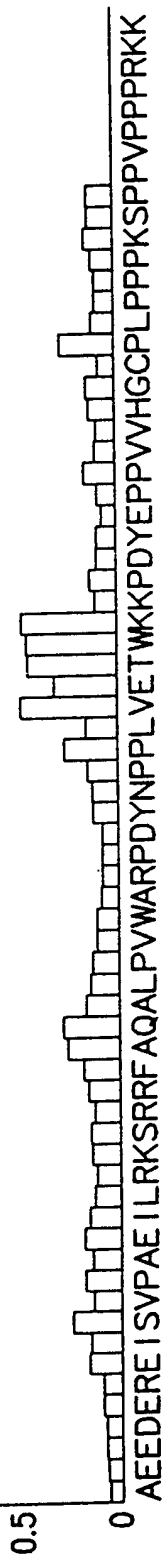
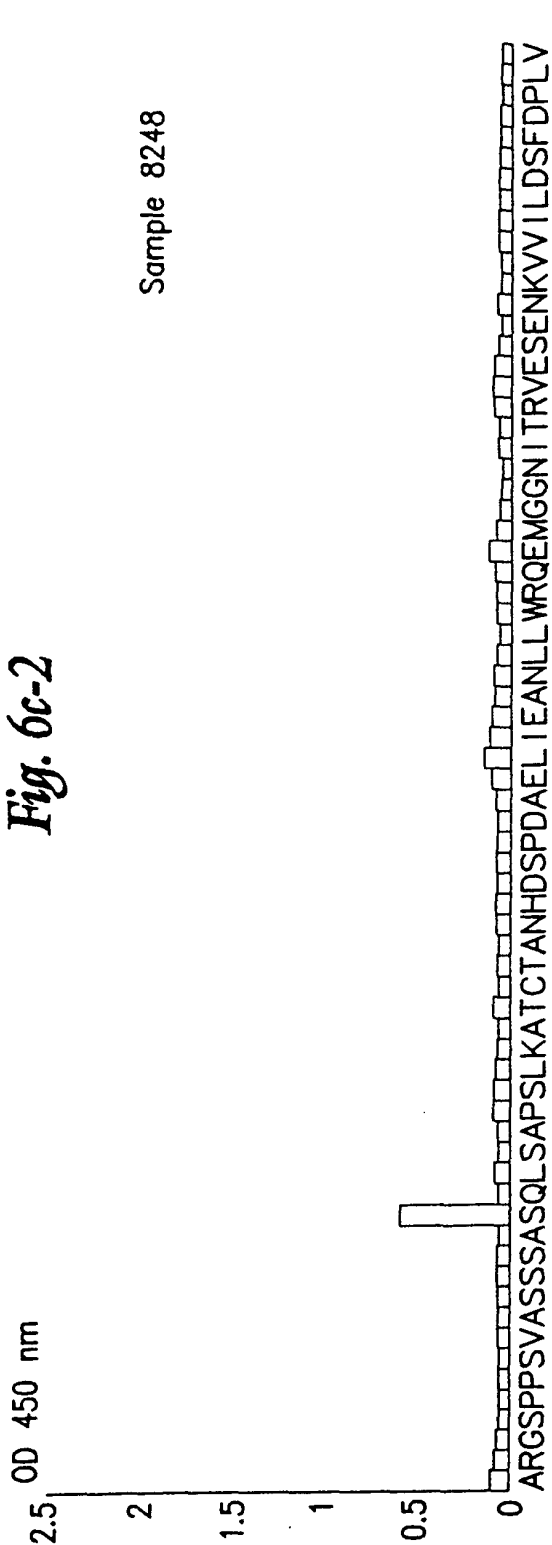


Fig. 6c-2

Sample 8248



Sample 8248 (continued)

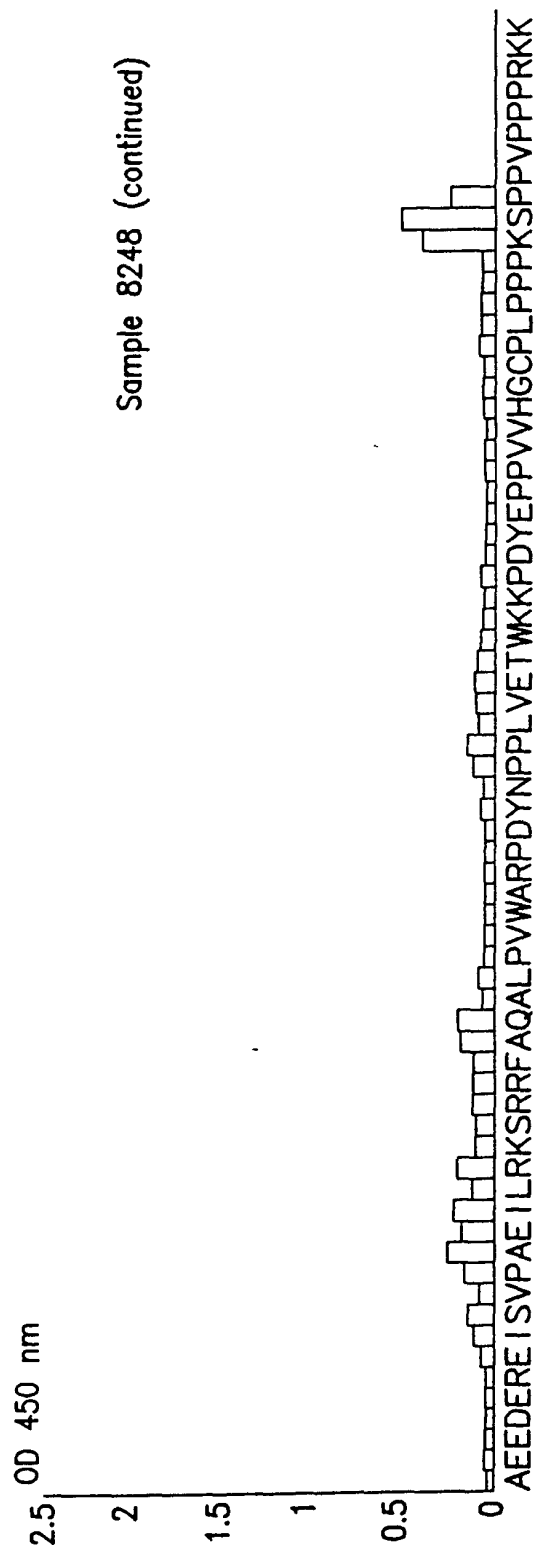
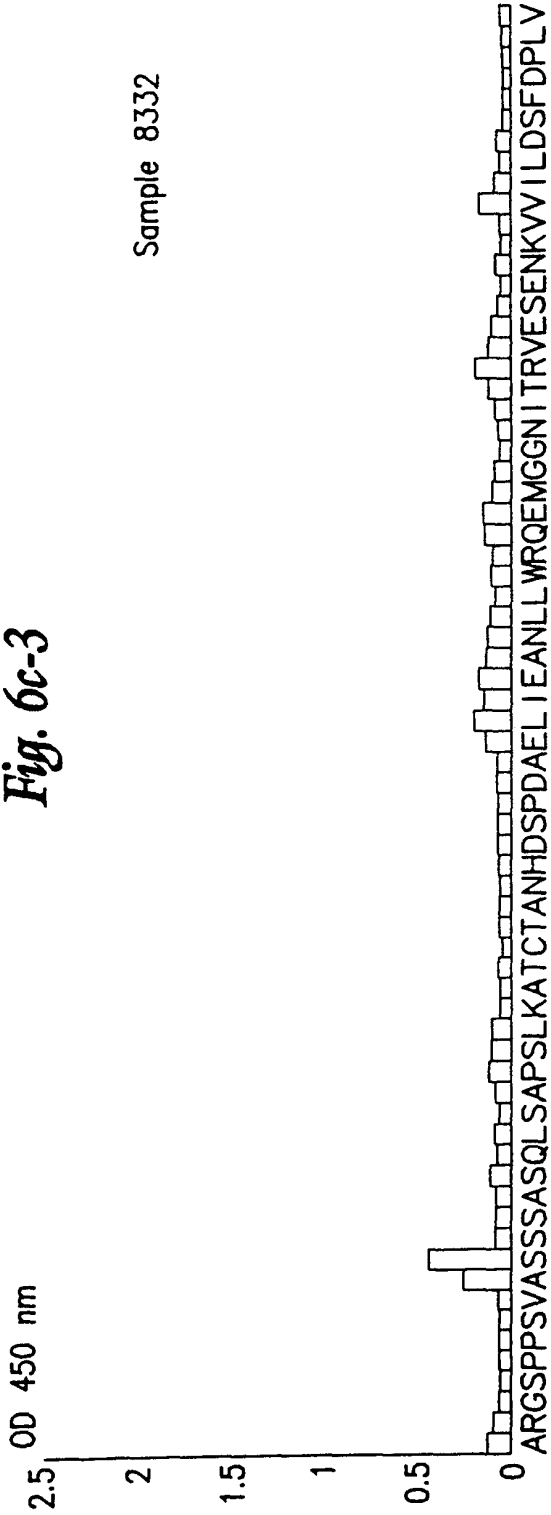


Fig. 6c-3

Sample 8332



Sample 8332 (continued)

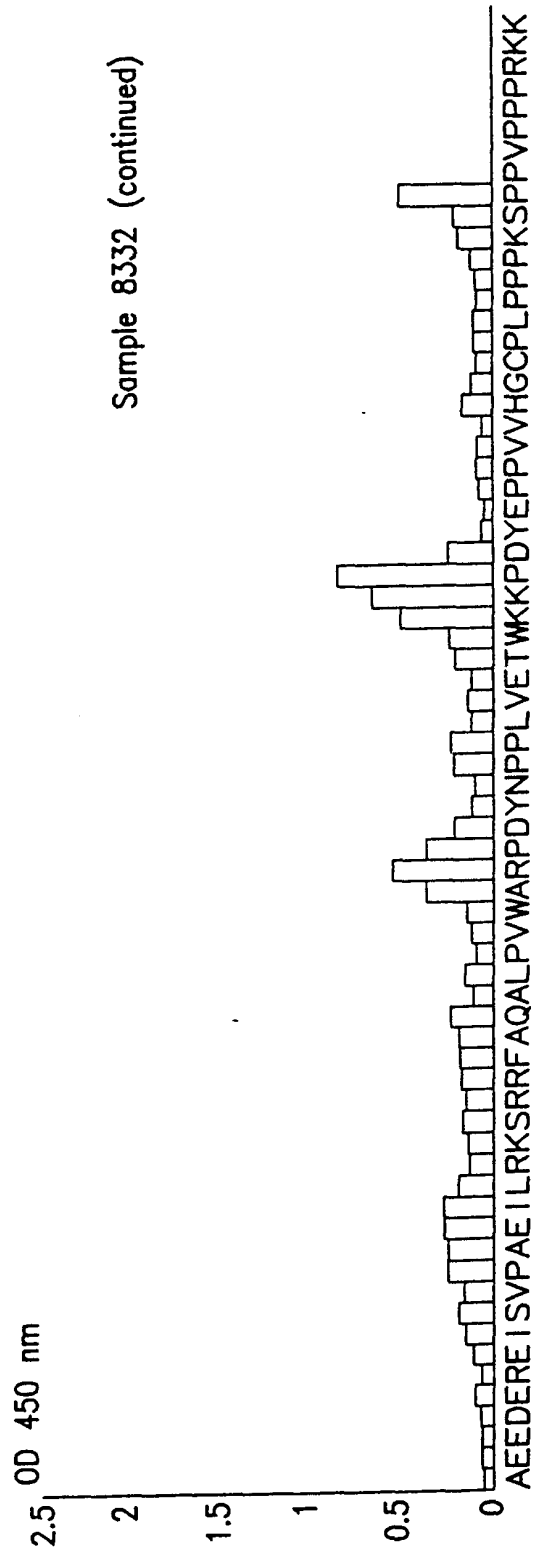


Fig. 6c-4

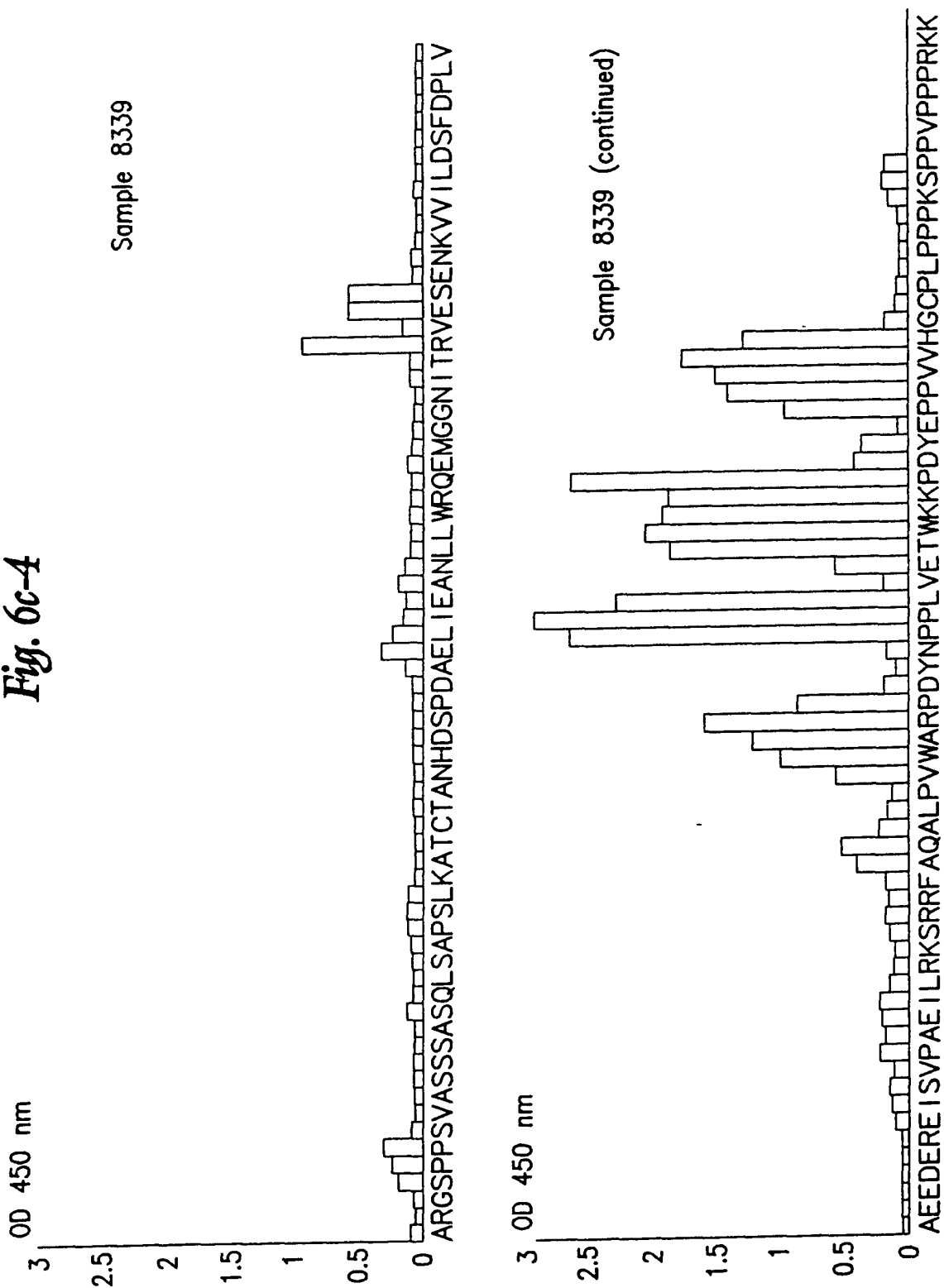
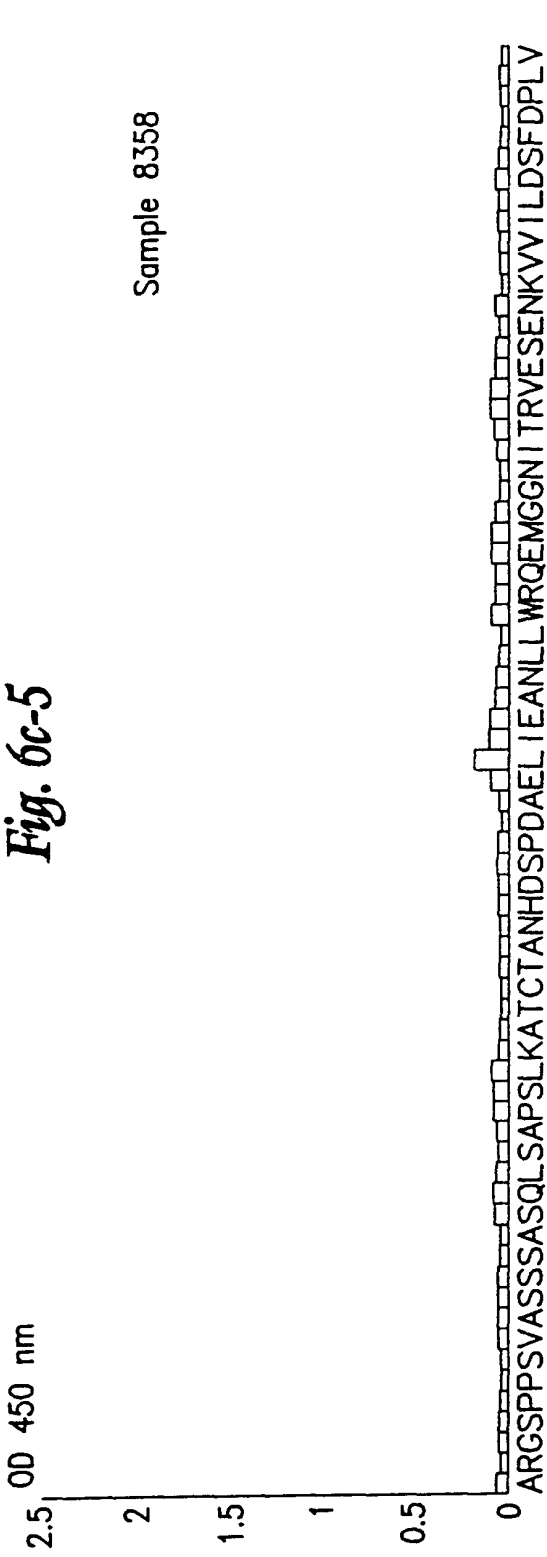


Fig. 6c-5

Sample 8358



Sample 8358 (continued)

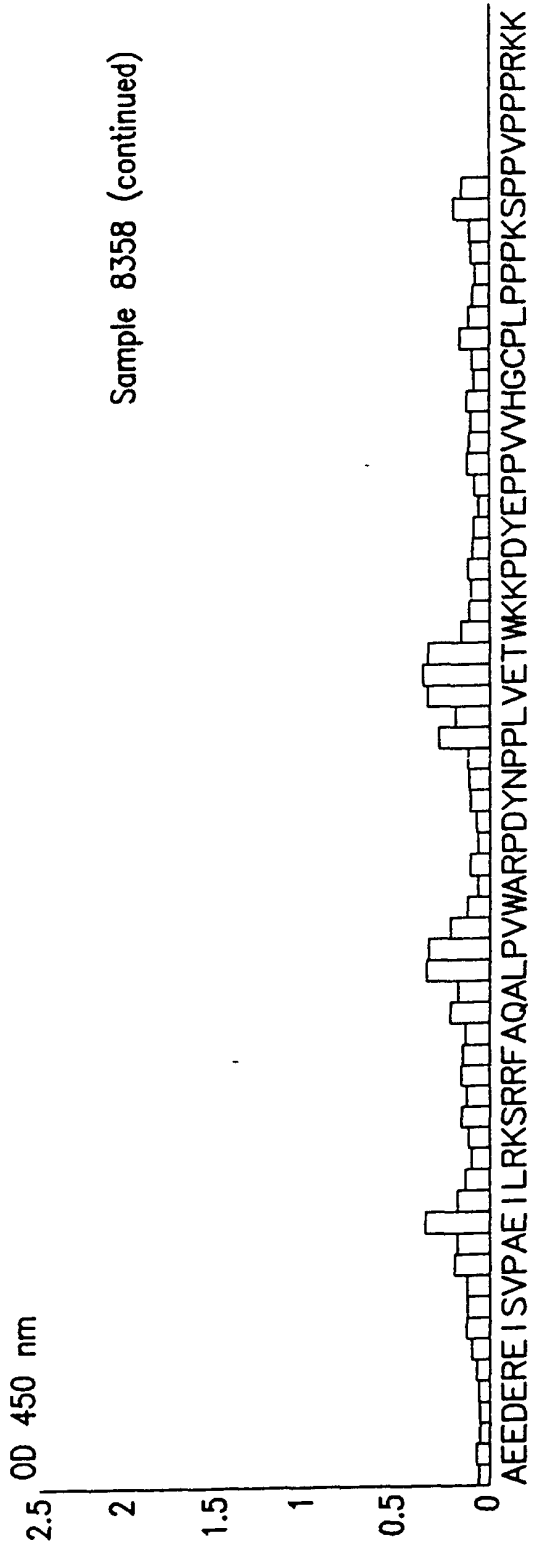


Fig. 6c-6

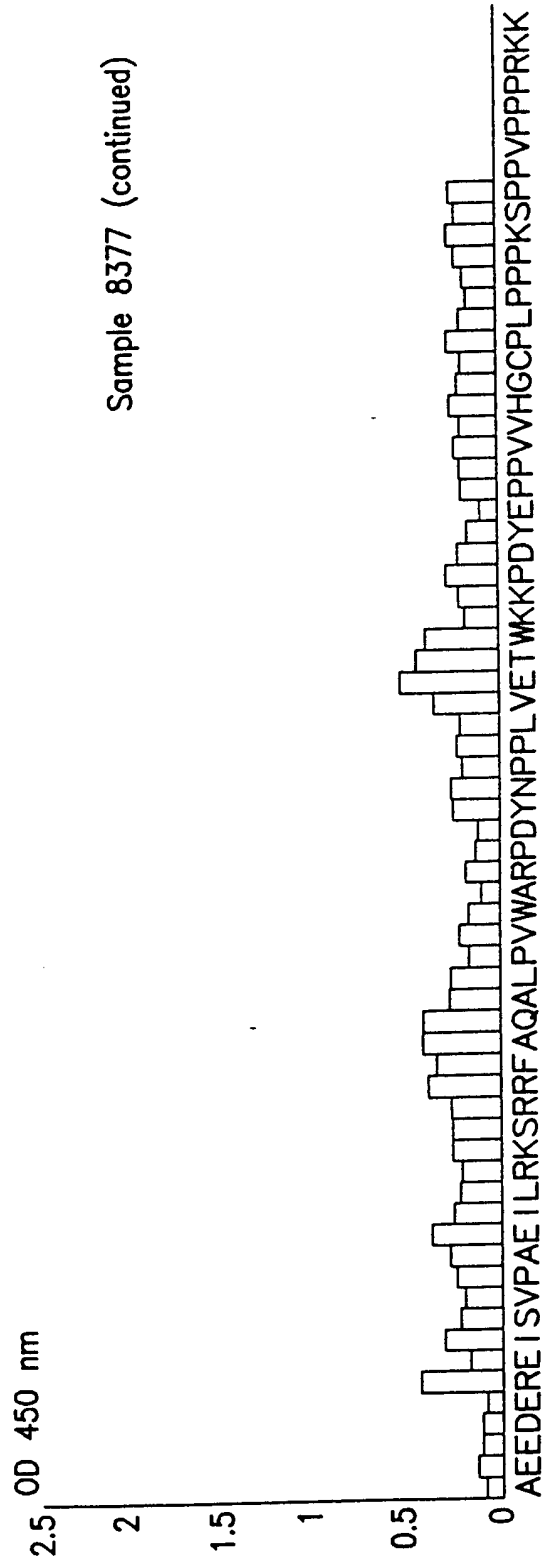
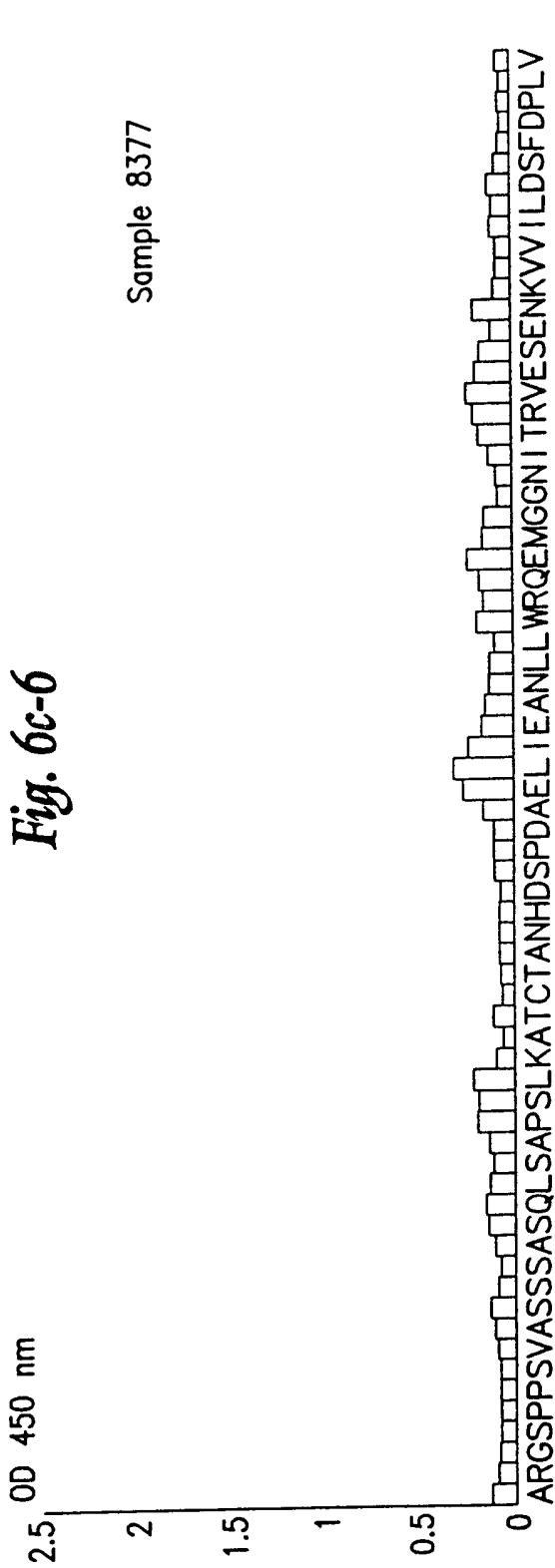
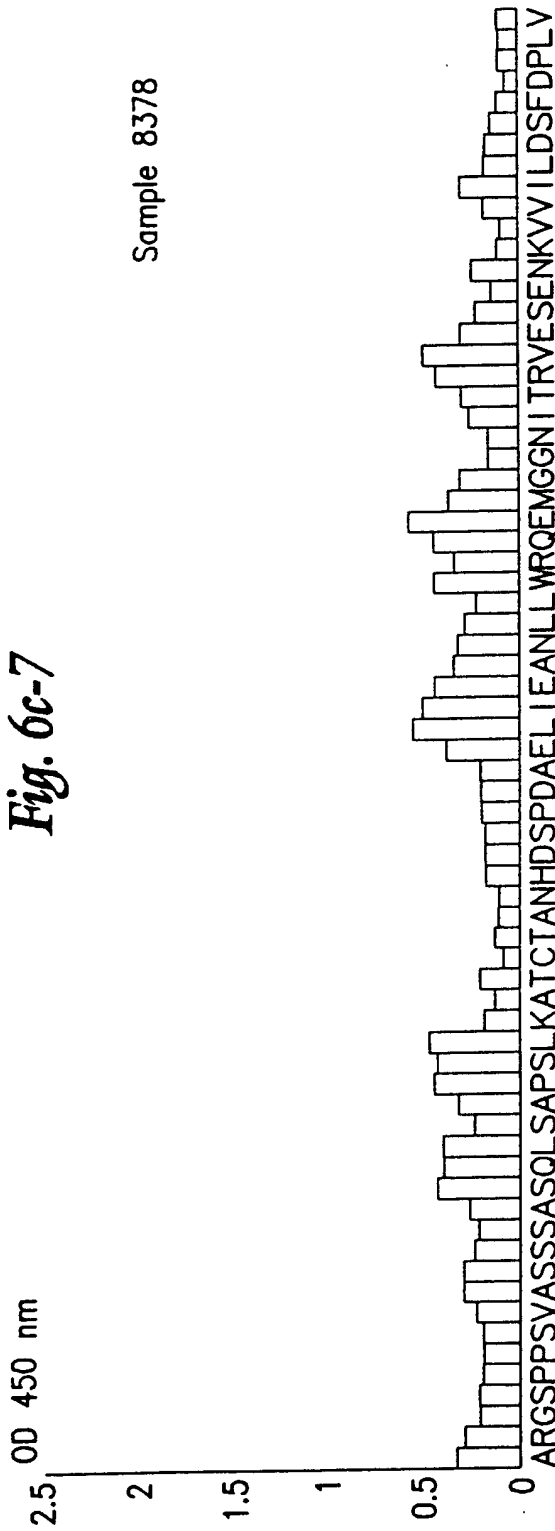


Fig. 6c-7

Sample 8378



Sample 8378 (continued)

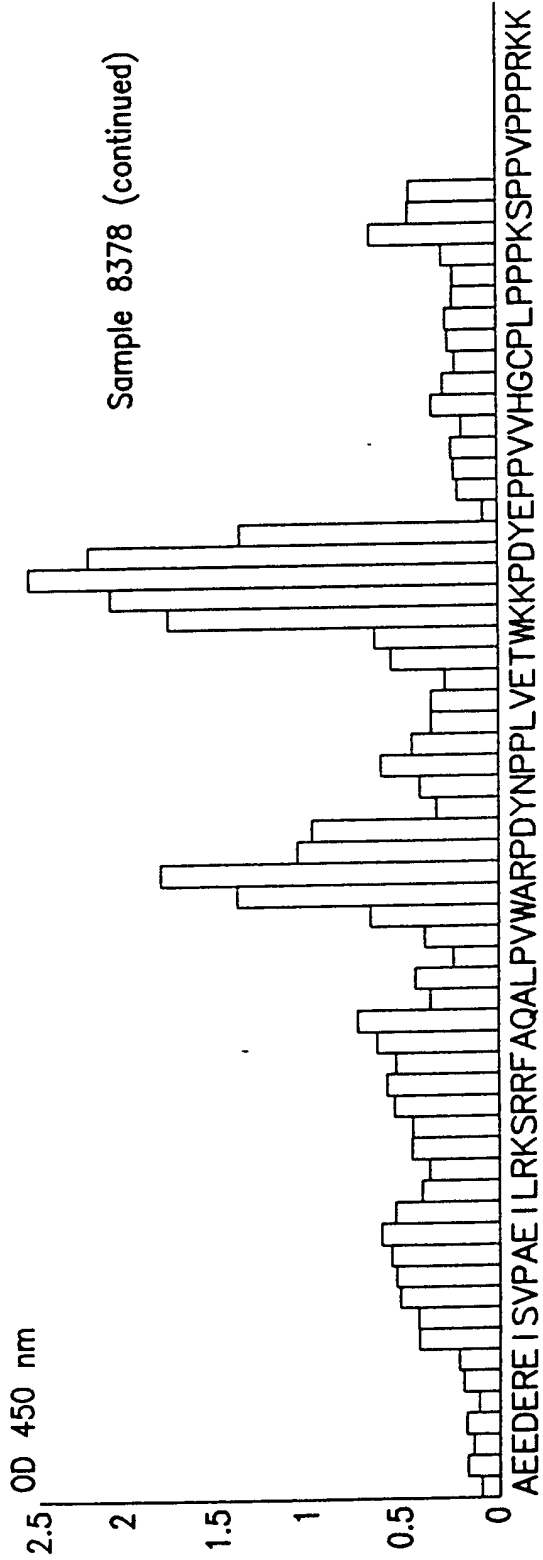
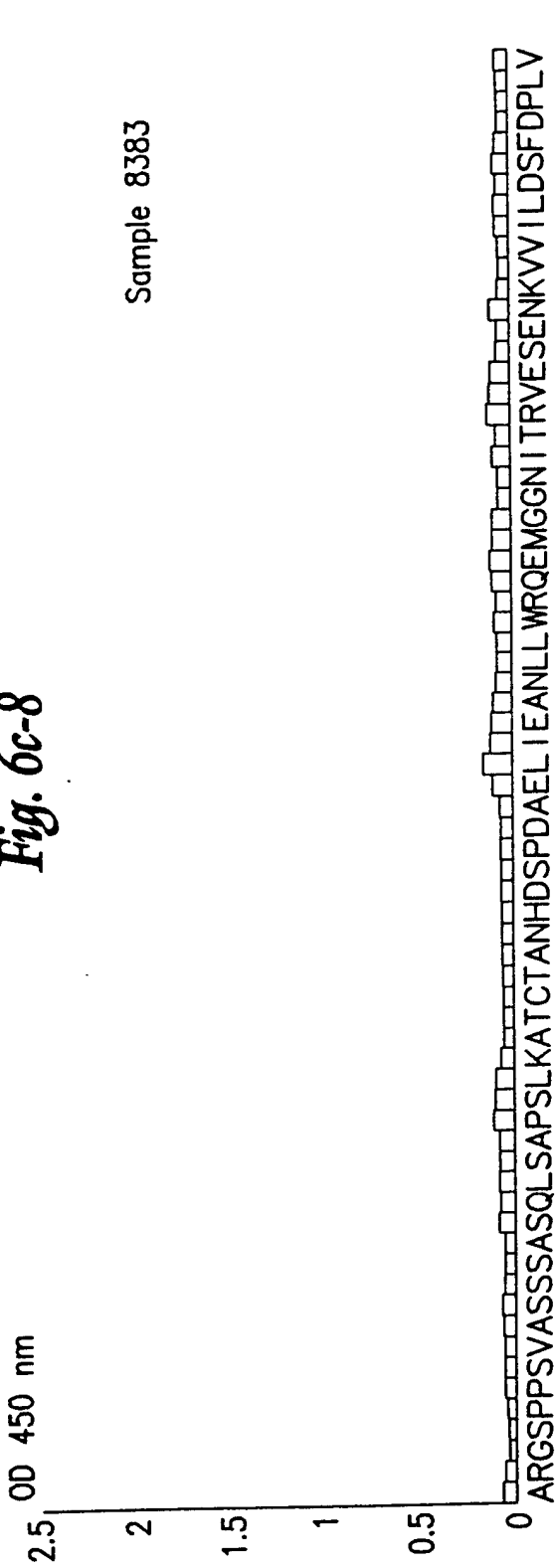


Fig. 6c-8

Sample 8383



Sample 8383 (continued)

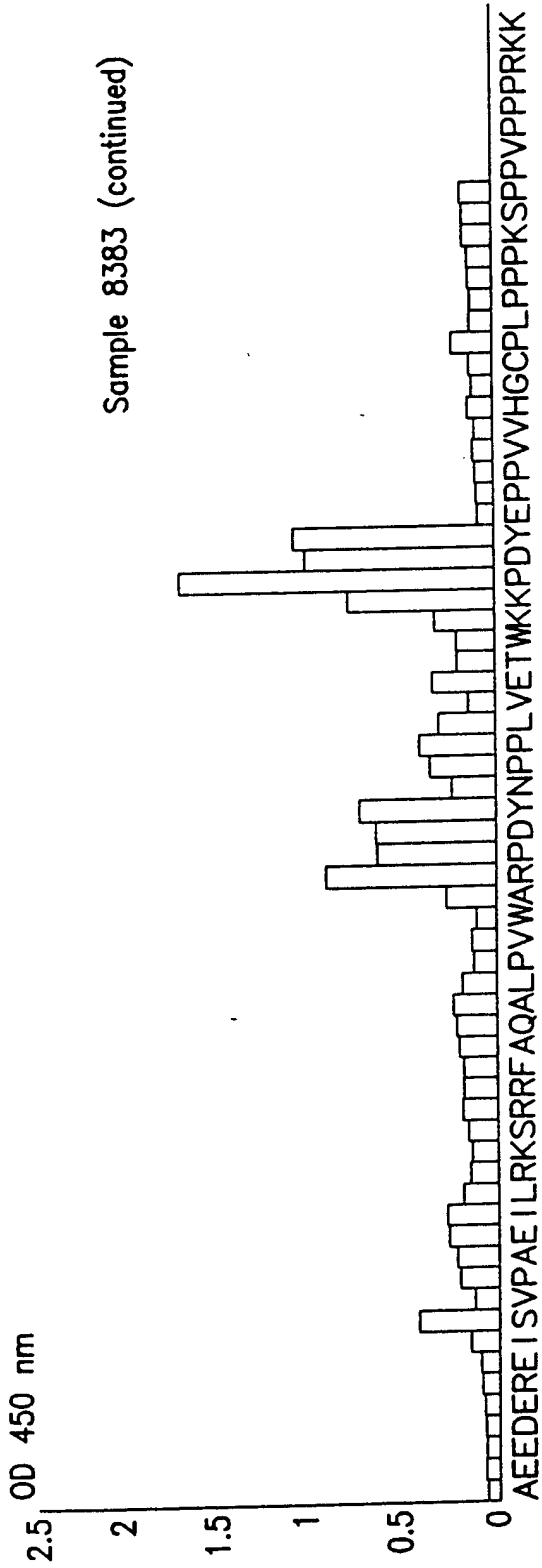


Fig. 6c-9

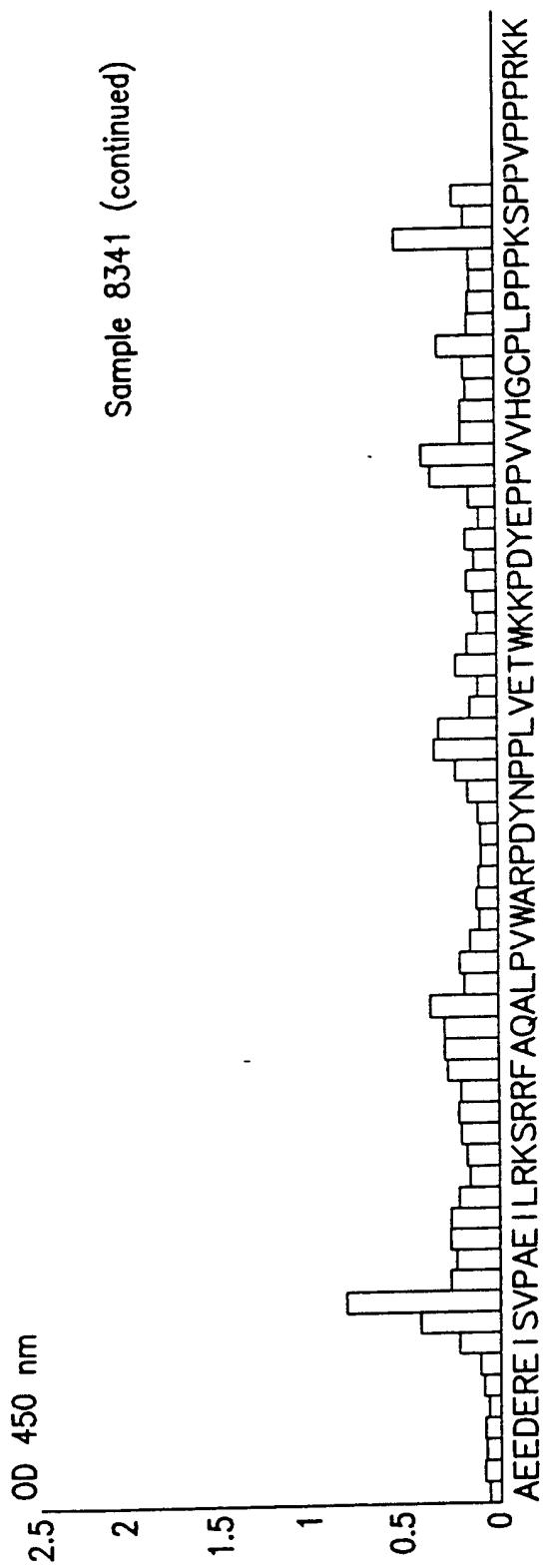
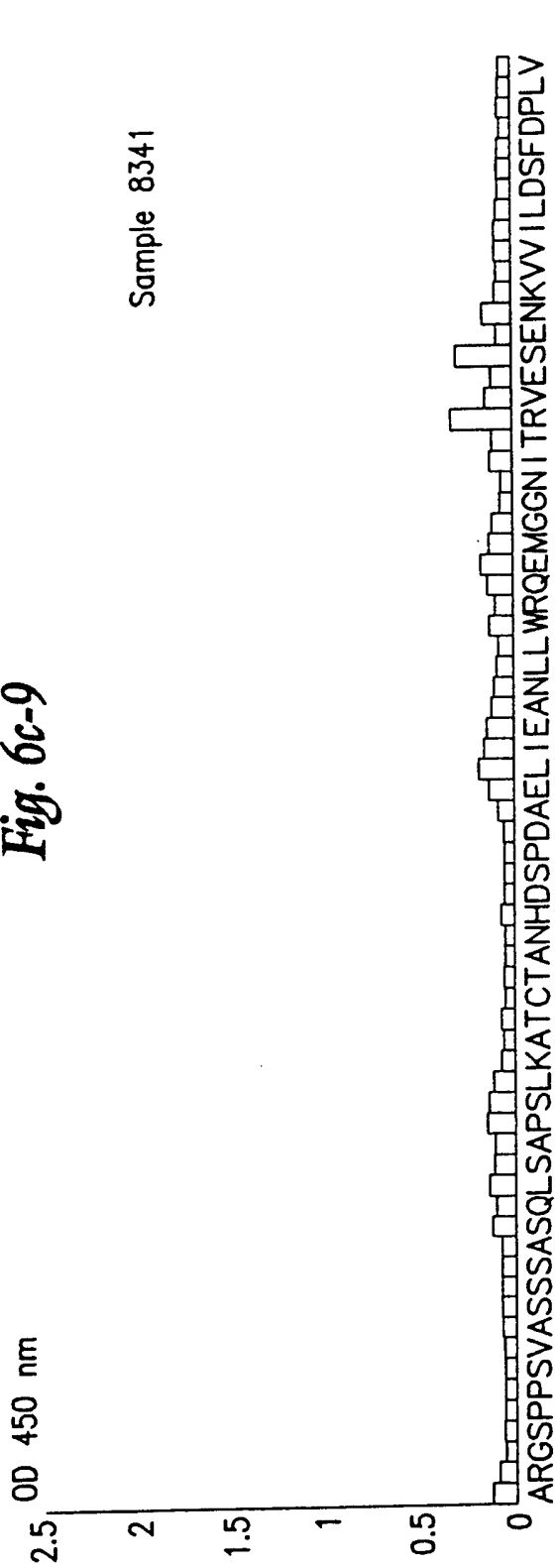


Fig. 6c-10

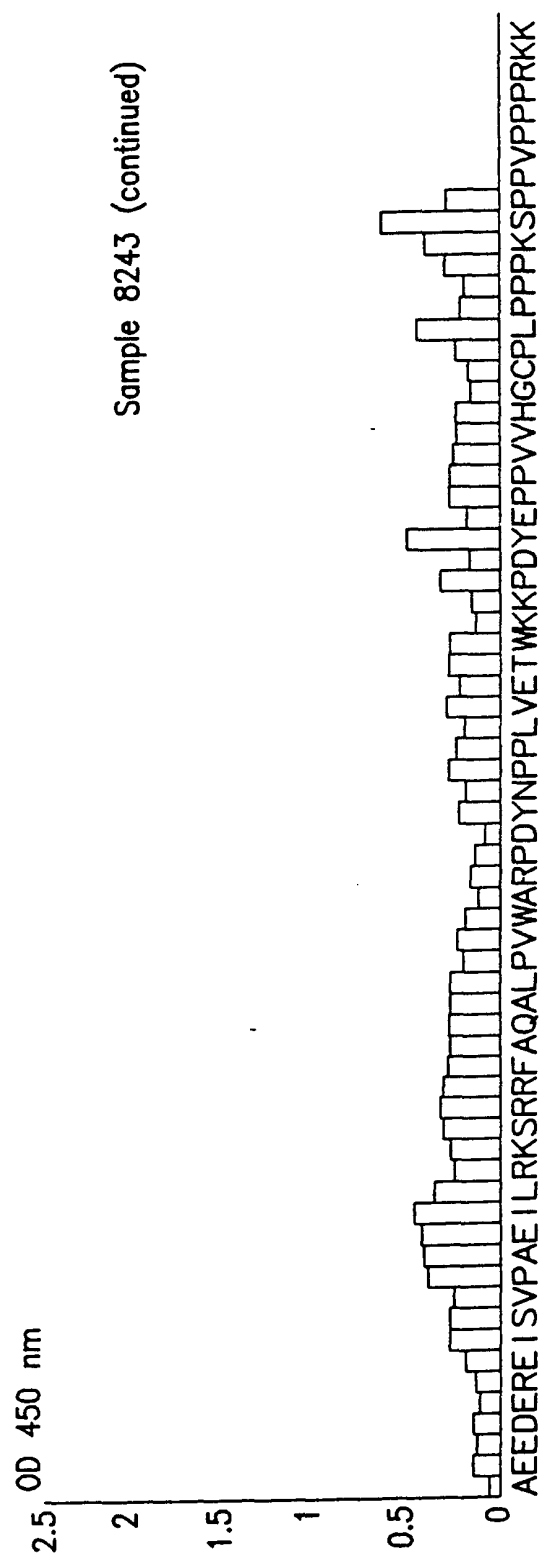
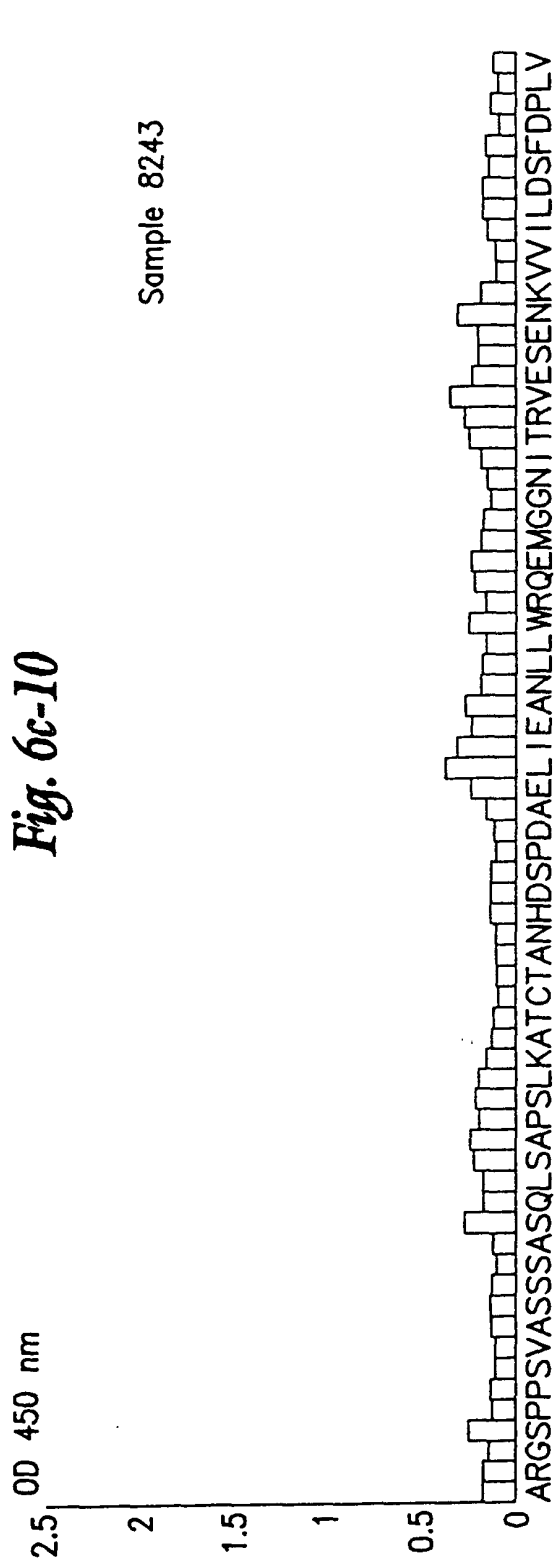


Fig. 7a-1

Peptide I MSTIPKPQRKTKRNTNRRPQ (SEQ ID NO:453)
 Peptide II PQRKTKRNTNRRRPQDVKFPG (SEQ ID NO:454)
 Peptide III RNTNRRRPQDVKFPGGGQIVG (SEQ ID NO:455)

Peptide I	Peptide II	Peptide III
(SEQ ID NO:)	(SEQ ID NO:)	(SEQ ID NO:)
(178) MSTIPKPQR	(184) PQRKTKRNT	(190) RNTNRRRPQD
(179) STIPKPQRK	(185) QRKTKRNTN	(191) NTNRRRPQDV
(180) TIPKPQRKT	(186) RKTGRNTNR	(192) TNRRRPQDVK
(181) IPKPQRKTK	(187) KTKRNTNRR	(193) NRRRPQDVKF
(182) PKPQRKTKR	(188) TKRNTNRRP	(194) RRPQDVKFPP
(183) KPQRKTKRN	(189) KRNTNRRPQ	(195) RPQDVKFPPG
(184) PQRKTKRNT	(190) RNTNRRRPQD	(196) PQDVKFPPGG
(185) QRKTKRNTN	(191) NTNRRRPQDV	(197) QDVKFPPGGG
(186) RKTGRNTNR	(192) TNRRRPQDVK	(198) DVKFPPGGGQ
(187) KTKRNTNRR	(193) NRRRPQDVKF	(199) VKFPPGGGQI
(188) TKRNTNRRP	(194) RRPQDVKFPP	(200) KFPGGGGQIV
(189) KRNTNRRRPQ	(195) RPQDVKFPPG	(201) FPGGGQIVG

Fig. 7a-2

Core 5 PGGQIVGGVYLLPRRGPRLL (SEQ ID NO:456)
 Peptide IV LPRRGPRLLGVRATRKTSERS (SEQ ID NO:457)
 Peptide V (SEQ ID NO:458) TRKTSERSQPRGRRQPIPKV
 Peptide VI (SEQ ID NO:459) RRQIPKVRREGRRTWAQPG

Inventor: DE LEYS, Robert
 SN Div of SN 09/576,824/Sheet
 35 of 57
 Attv. Dkt.: 2551-124

Core 5	Peptide IV	Peptide V	Peptides VI
(SEQ ID NO:)	(SEQ ID NO:)	(SEQ ID NO:)	(SEQ ID NO:)
(202) PGGQIVGG	(214) LPRRGPRLLG	(238) TRKTSERSQ	(238) RRQIPKVR
(203) GGGQIVGGV	(215) PRRGPRLGV	(239) RKTSESRQP	(239) RQIPKVR
(204) GGQIVGGVY	(216) RRGPRLGVR	(240) KTSERSQPR	(240) QIPKVR
(205) GQIVGGVYL	(217) RGPRLGVRA	(241) TSERSQPRG	(241) PIPKVR
(206) QIVGGVYLL	(218) GPRLGVRAT	(242) SERSQPRGR	(242) IPKVR
(207) IVGGVYLLP	(219) PRLGVRATR	(243) ERSQPRGR	(243) PKVR
(208) VGGVYLLPR	(220) RLGVRATR	(244) RSQPRGR	(244) KVR
(209) GGVYLLPRR	(221) LGVRATRKT	(245) SQPRGR	(245) VRR
(210) GYLLPRRG	(222) GVRATR	(246) QPRGR	(246) RR
(211) VYLLPRRG	(223) VRATR	(247) PRGR	(247) R
(212) YLLPRRG	(224) RATR	(248) RGR	(248) P
(213) LLPRRG	(225) ATR	(249) GRR	(249) E

Fig. 7a-3

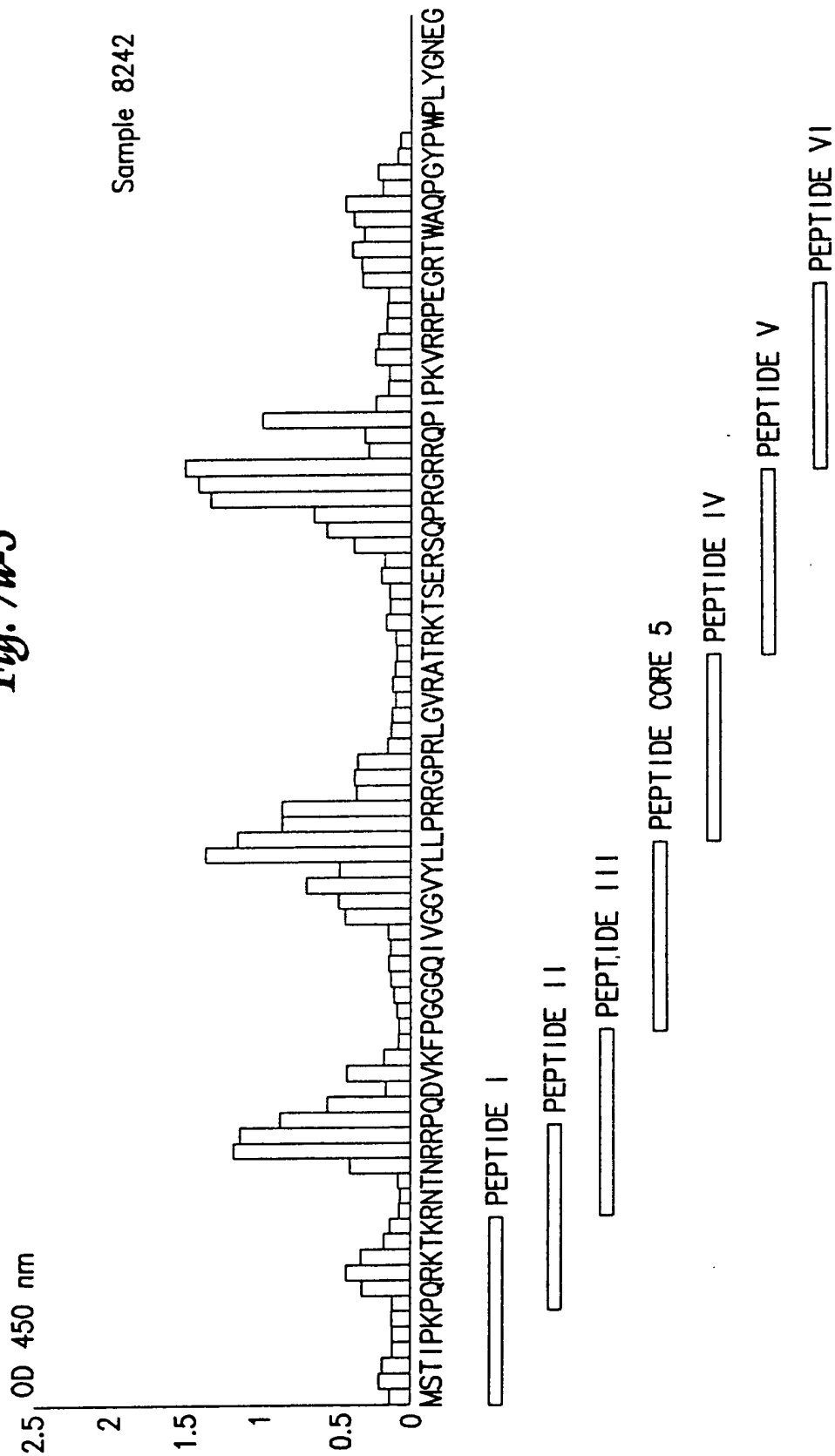


Fig. 7b-1

HCV1	LSGKPAIIPDREVLREFDE	(SEQ ID NO:460)			
HCV2	IIPDREVLREFDEMEEC	SEQ ID NO:460)			
HCV3	VLYREFDEMEEC	SEQ ID NO:462)			
HCV4	DEMEEC	SEQ ID NO:463)			
HCV5	SQHLPLYIEQGMMLAEQFKQK	(SEQ ID NO:464)			
HCV6	IEQGMMLAEQFKQKALGLLQ	(SEQ ID NO:465)			

	<u>HCV2</u>	<u>HCV3</u>	<u>HCV4</u>	<u>HCV5</u>	<u>HCV6</u>
(SEQ ID NO:)	(SEQ ID NO:)	(SEQ ID NO:)	(SEQ ID NO:)	(SEQ ID NO:)	(SEQ ID NO:)
(258)	LSGKPAIIPDREVL	270VLYREFDEM	276DEMEEC	282SQHLPLYIEQ	288IEQGMMLAE
(259)	SGKPAIIPD	271LYREFDEME	277EMEEC	283QHLPLYIEQ	289EQGMMLAEQ
(260)	GKPAIIPDR	272YREFDEME	278MEEC	284HLPLYIEQ	290QGMMLAEQF
(261)	KPAIIPDRE	273REFDEME	279EECS	285LPYIEQ	291GMMLAEQFK
(262)	PAIIPDREV	274EFDEME	280ECS	286PYIEQ	292MMLAEQFKQ
(263)	AIIPDREV	275FDEME	281CSQ	287YIEQ	293MLAEQFKQK
(264)	IIPDREV	276DEME	282SQHLPLYIEQ	288IEQGMMLAE	294LAEQFKQKA
(265)	IPDREV	277EME	283QHLPLYIEQ	289EQGMMLAEQ	295AEQFKQKAL
(266)	PDREV	278ME	284HLPLYIEQ	290QGMMLAEQF	296EQFKQKALG
(267)	DREV	279EE	285LPYIEQ	291GMMLAEQFK	297QFKQKALGL
(268)	REV	280EC	286PYIEQ	292MMLAEQFKQ	298FKQKALGLL
(269)	EV	281CSQ	287YIEQ	293MLAEQFKQK	299KQKALGLLQ

Fig. 7b-2

HCV7 LAEQFKQKALGLLQTASRQA (SEQ ID NO:466)
HCV8 QKALGLLQTASRQAEVIAPA (SEQ ID NO:467)
HCV9 LQTASRQAEVIAPAVQTNWQ (SEQ ID NO:468)

<u>HCV7</u>	<u>HCV8</u>	<u>HCV9</u>
(SEQ ID NO:)	(SEQ ID NO:)	(SEQ ID NO:)
(294) LAEQFKQKA (300)	QKALGLLQT (306)	LQTASRQAE
(295) AEQFKQKAL (301)	KALGLLQTA (307)	QTASRQAEV
(296) EQFKQKALG (302)	ALGLLQTAS (308)	TASRQAEVI
(297) QFKQKALGL (303)	LGLLQTASR (309)	ASRQAEVIA
(298) FKQKALGLL (304)	GLLQTASRQ (310)	SRQAEVIAP
(299) KQKALGLLQ (305)	LLQTASRQA (311)	RQAEVIAPA
(300) QKALGLLQT (306)	LQTASRQAE (312)	QAEVIAPAV
(301) KALGLLQTA (307)	QTASRQAEV (313)	AEVIAPAVQ
(302) ALGLLQTAS (308)	TASRQAEVI (314)	EVIAPAVQT
(303) LGLLQTASR (309)	ASRQAEVIA (315)	VIAPAVQTN
(304) GLLQTASRQ (310)	SRQAEVIAP (316)	IAPAVQTNW
(305) LLQTASRQA (311)	RQAEVIAPA (317)	APAVQTNWQ

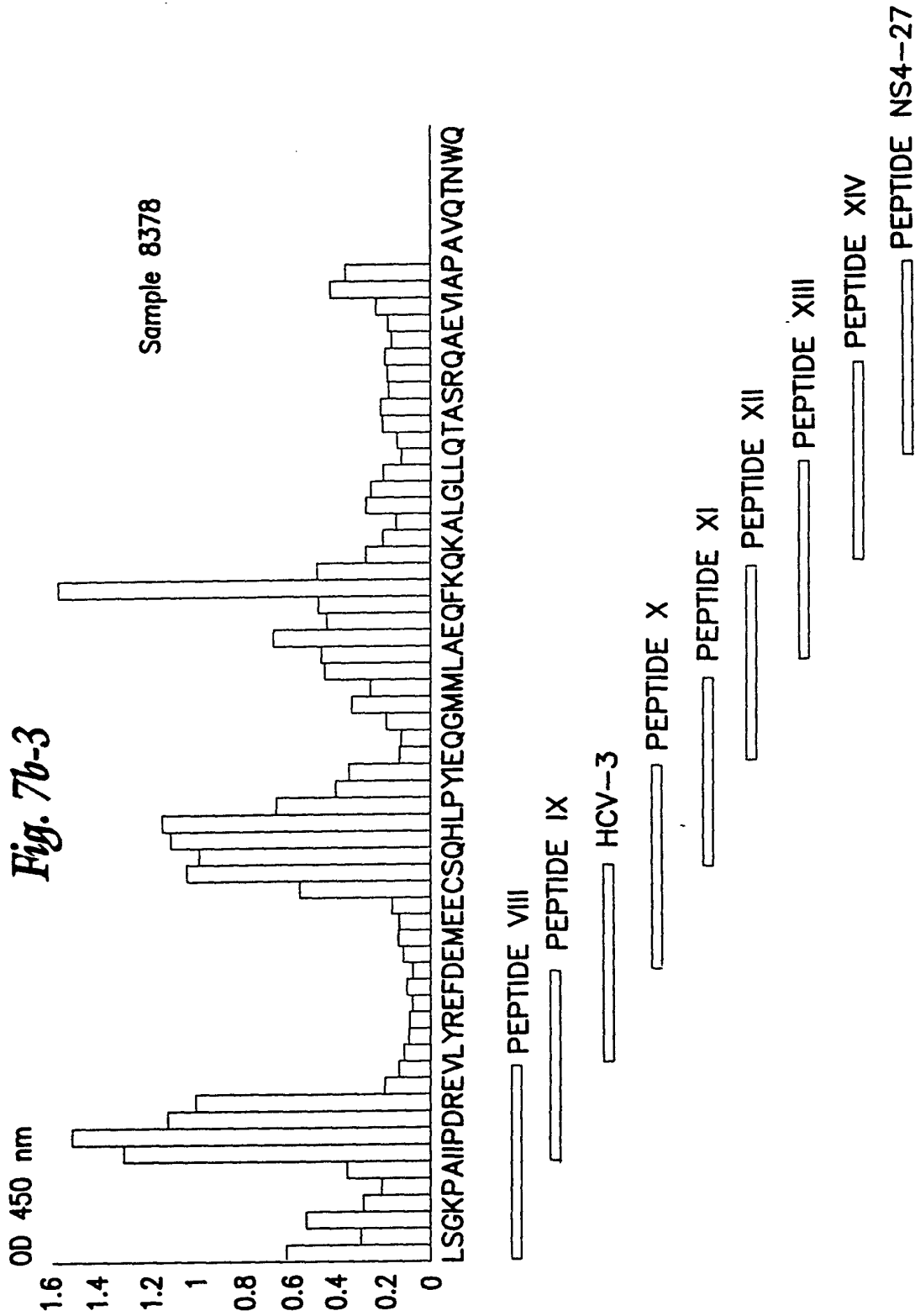


Fig. 7c-1

NS5-21 GNITRYESENKVVILDSFDP (SEQ ID NO:469)
 NS5-23 VILDSFDPLVAEEDEREISV (SEQ ID NO:470)
 NS5-25 EDEREISVPAEILRKSRFA (SEQ ID NO:471)
 NS5-27 (SEQ ID NO:472) LRKSRFAQALPVWARPDYN
 NS5-29 (SEQ ID NO:473) VWARPDYNPPLVETWKKPDY

	<u>NS5-21</u>	<u>NS5-23</u>	<u>NS5-25</u>	<u>NS5-27</u>	<u>NS5-29</u>
SEQ ID NO:	SEQ ID NO:	SEQ ID NO:	SEQ ID NO:	SEQ ID NO:	SEQ ID NO:
318	GNITRYESE 330	VILDSFDPL 342	EDEREISVP 354	LRKSRRFAQ 366	VWARPDYNP
319	NITRYESEN 331	ILDSFDPLV 343	DEREISVPA 355	RKSRRFAQA 367	WARPDYNPP
320	ITRYESENK 332	LDSFDPLVA 344	EREISVPAE 356	KSRRFAQAL 368	ARPDYNPPL
321	TRYESENKV 333	DSFDPLVAE 345	REISVPAEI 357	SRRFAQALP 369	RPDYNPPLV
322	RYESENKVV 334	SFDPLVAEE 346	EISVPAEIL 358	RRFAQALPV 370	PDYNPPLVE
323	YESENKVI 335	FDPLVAEED 347	ISVPAEILR 359	RFAQALPVW 371	DYNPPLVET
324	ESENKVVIL 336	DPLVAEED 348	SVPAEILRK 360	FAQALPVA 372	YNPPLVETW
325	SENKVVILD 337	PLVAEEDER 349	VP AEILRKS 361	AQALPVWAR 373	NPPLVETWK
326	ENKVVILDS 338	LVAEEDERE 350	PAEILRKSR 362	QALPVWARP 374	PPLVETWKK
327	NKVVILDSF 339	VAEEDEREI 351	AEILRKSR 363	ALPVWARPD 375	PLVETWKKP
328	KVVILDSFD 340	AEEDEREIS 352	EILRKSRRF 364	LPVWARPDY 376	LVETWKKPD
329	VVILDSFDP 341	EEDEREISV 353	ILRKSRFA 365	PVWARPDYN 377	VETWKKPDY

Fig. 7c-2

NS5-31 ETWKKPDYEPV VHGCP LPP (SEQ ID NO:474)
 NS5-33 (SEQ ID NO:475) VHGCP LPPPKSPVP PPRKK

<u>NS5-31</u>		<u>NS5-33</u>	
(SEQ ID NO:)		(SEQ ID NO:)	
378	ETWKKPDYE	390	VHGCP LPPK
379	TWKKPDYEP	391	HGCP LPPKS
380	WKKPDYEP	392	GCPLPPKSP
381	KKPDYEPV	393	CPLPPKSP
382	KPDYEPV	394	PLPPKSPV
383	PDYEPV	395	LPPKSPV
384	DYEPV	396	PPKSPVP
385	YEPV	397	PPKSPVP
386	EPV	398	PKSPVP
387	PPV	399	KSPVP
388	PV	400	SPVP
389	VV	401	PPVP

Fig. 7c-3

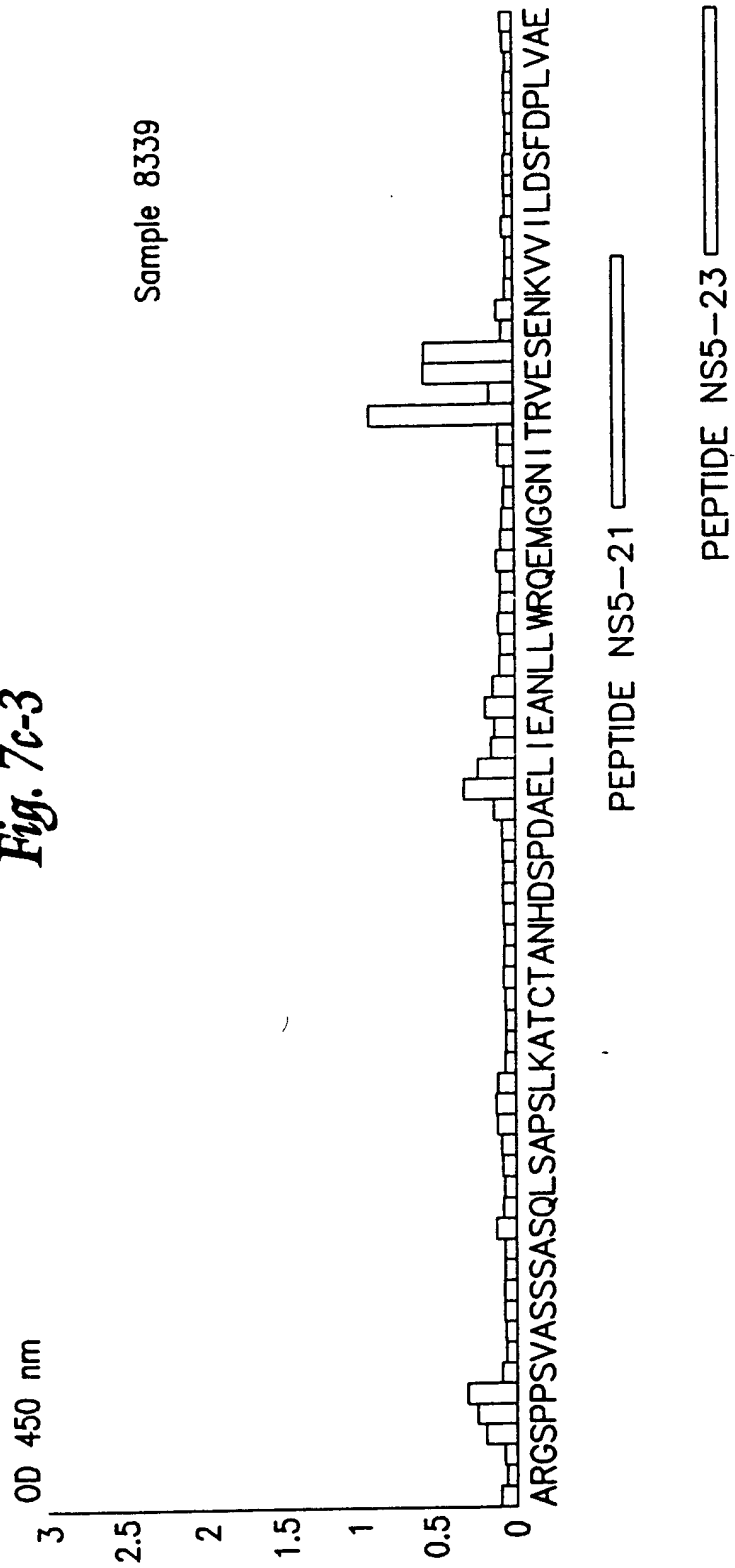


Fig. 7c-4

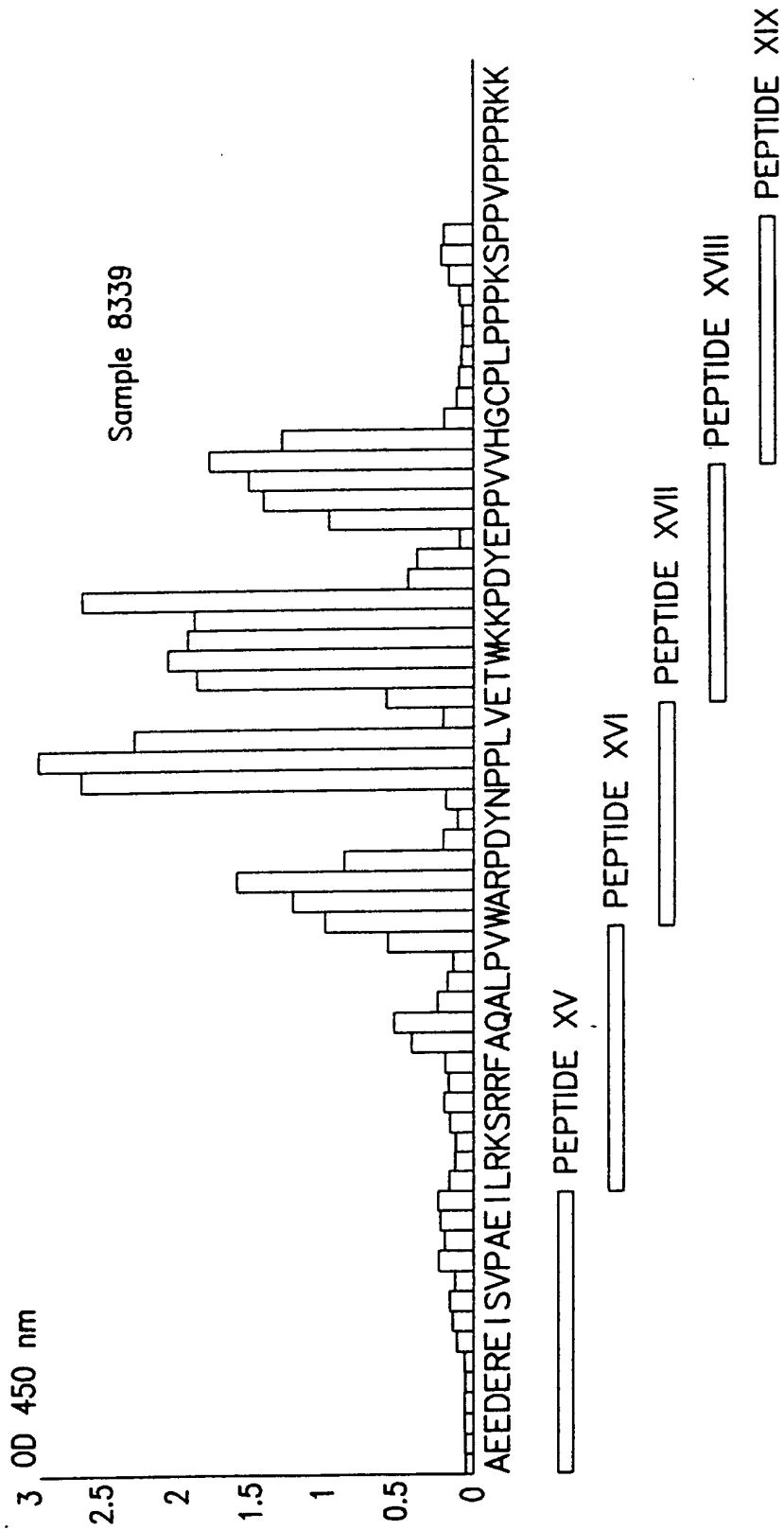
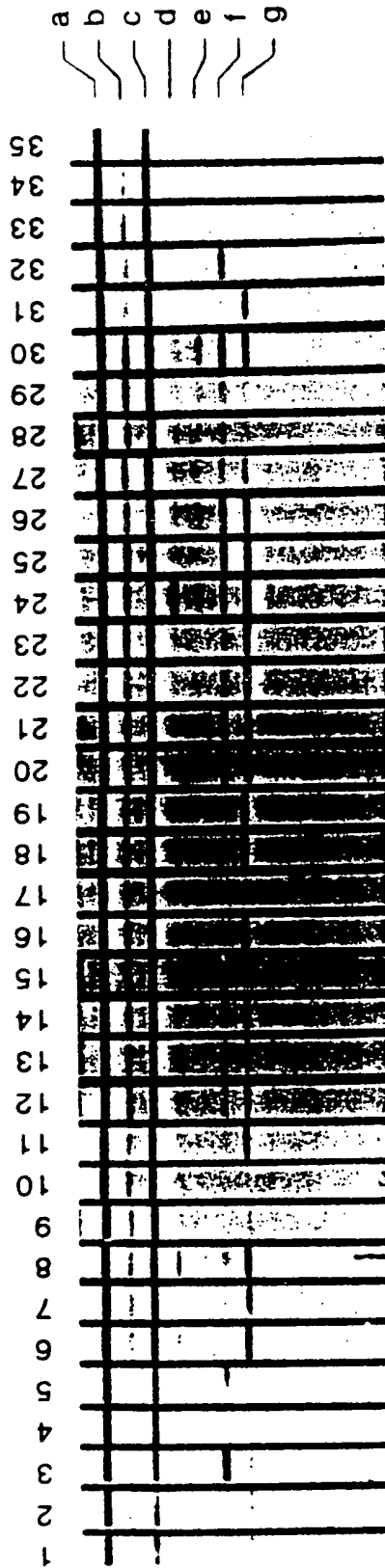


Fig. 8



- a: High intensity control
- b: Low intensity control
- c: Medium intensity control
- d: Peptide XXg-1, unbiotinylated
- e: Peptide XXg-2, unbiotinylated
- f: Biotinylated peptide XXg-1: streptavidin complex
- g: Biotinylated peptide XXg-2: streptavidin complex

Fig. 9

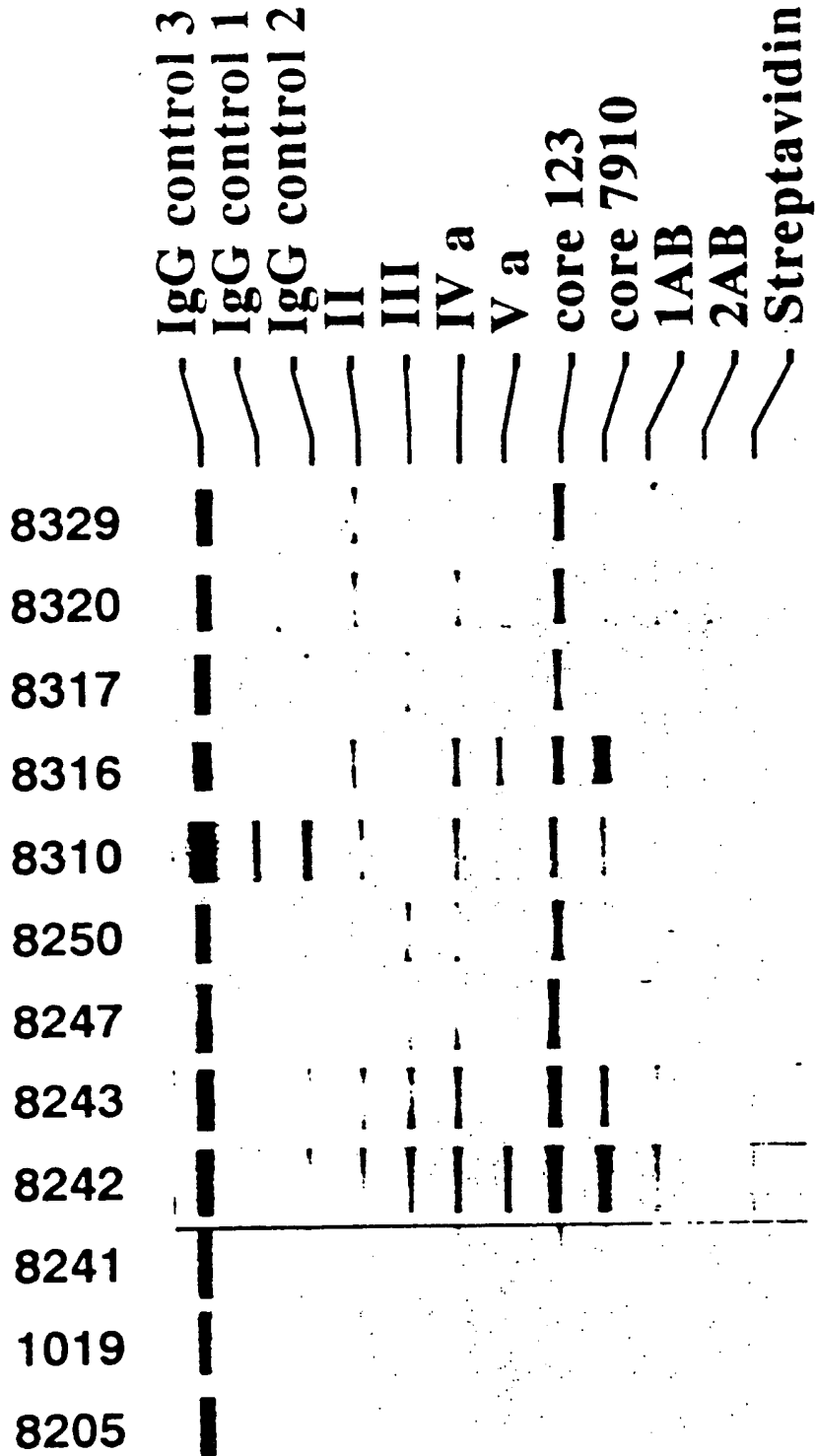


Fig. 10

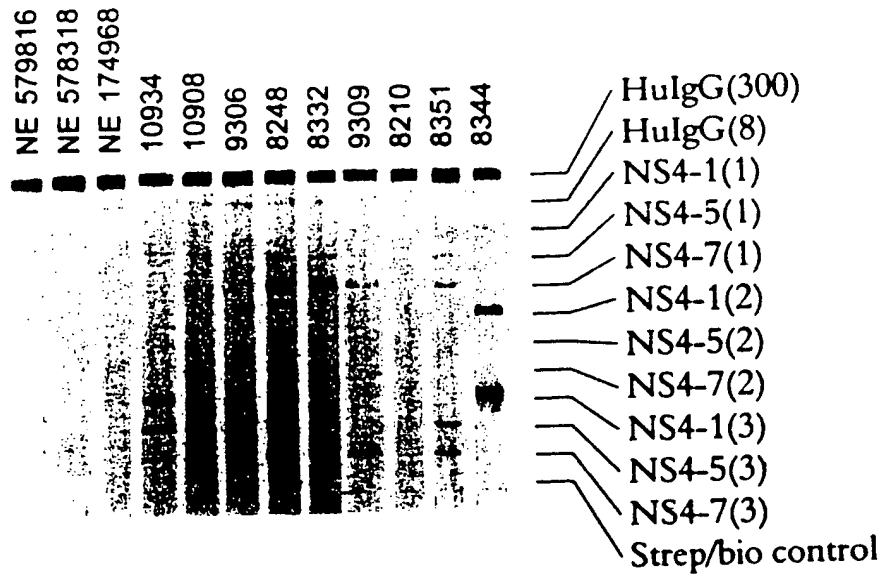


Fig. 11

Peptide	Sequence
NS4-a	GALVAFKIMSGEVPSTEDLV (SEQ ID NO:445)
NS4-b	VPSTEDLVNLLPAILSPGAL (SEQ ID NO:446)
NS4-c	AILSPGALVVGVCAAILRR (SEQ ID NO:447)
NS4-d	VCAAILRRHVGPGEAVQWM (SEQ ID NO:448)
NS4-e	GEGAVQWMNRLIAFASRGNH (SEQ ID NO:449)

Fig. 12

(SEQ ID NO:)	Peptide	Amino Acid Sequence
Epi-152 (450)		Bio- G G - I P D R E V L Y R G G K K P D Y E P P V G G R R P Q D V K F P <div data-bbox="646 1184 716 1423">NS4 epitope 1</div> <div data-bbox="646 764 716 1003">NS5 epitope 5</div> <div data-bbox="646 338 716 577">Core epitope 2</div>
Epi-33B3A (451)		Bio- G G - W A R P D Y N P P G G Q F K Q K A L G L G S G V Y L L P R R G <div data-bbox="862 1184 932 1423">NS5 epitope 3</div> <div data-bbox="862 764 932 1003">NS4 epitope 3B</div> <div data-bbox="862 338 932 577">Core epitope 3A</div>
Epi-4B2A6 (452)		Bio- G G - R G R R Q P I P K G G S Q H L P Y I E Q S G P V H G C P L P <div data-bbox="1078 1184 1148 1423">Core epitope 4B</div> <div data-bbox="1078 764 1148 1003">NS4 epitope 2A</div> <div data-bbox="1078 338 1148 577">NS5 epitope 6</div>

Fig. 13

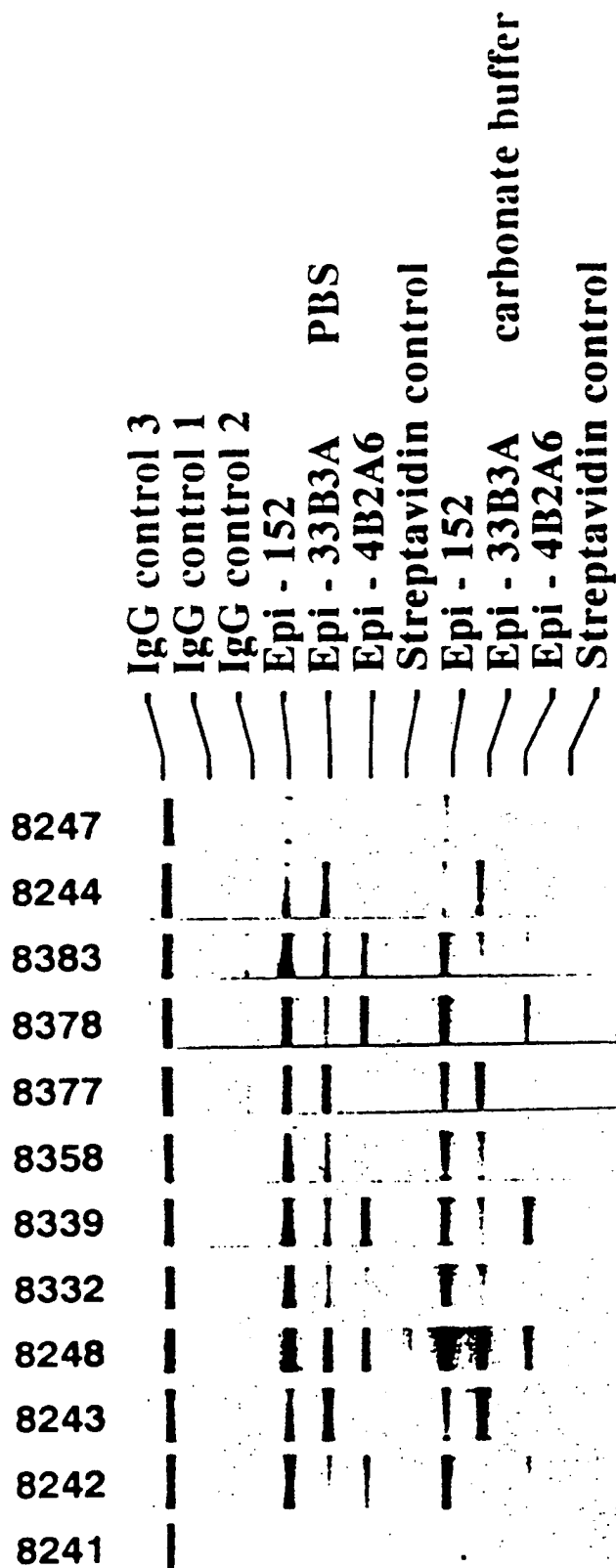


Fig. 14a

[illegible]

Fig. 146

2	
4	
16	
64	
192	
768	
4608	
9216	
46080	
138240	
414720	
1658880	
6635520	
59719680	
238878720	
1911029760	
1.1466179 E 10	
No. of Variants	

Fig. 14c

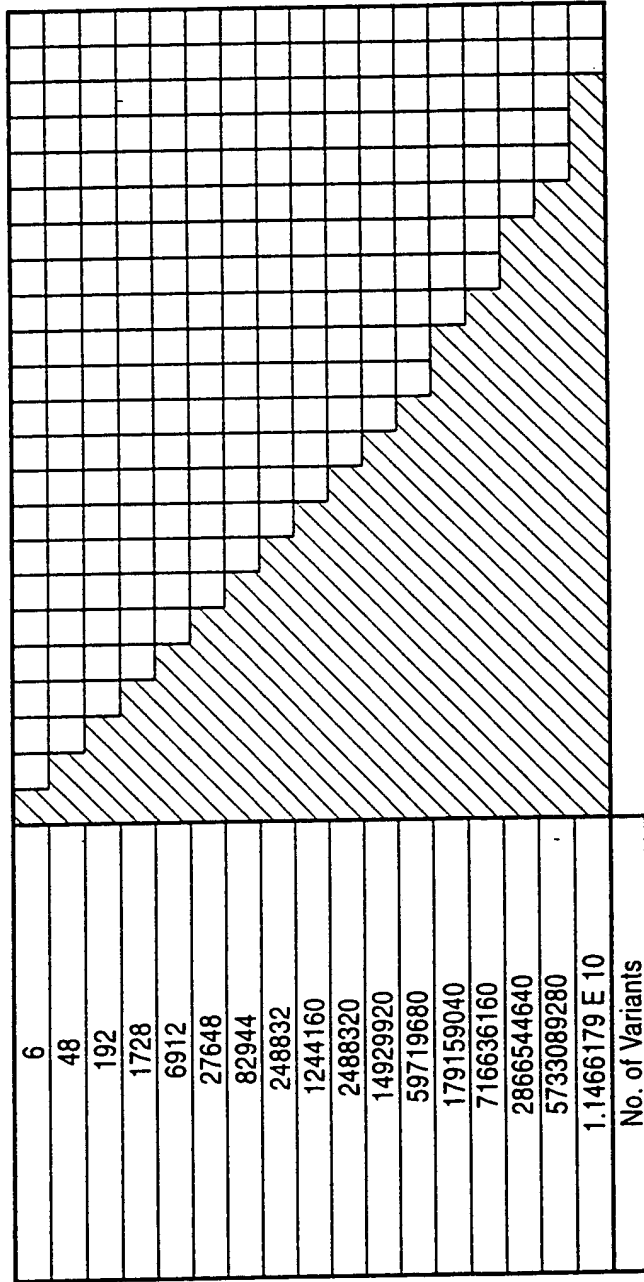


Fig. 14d

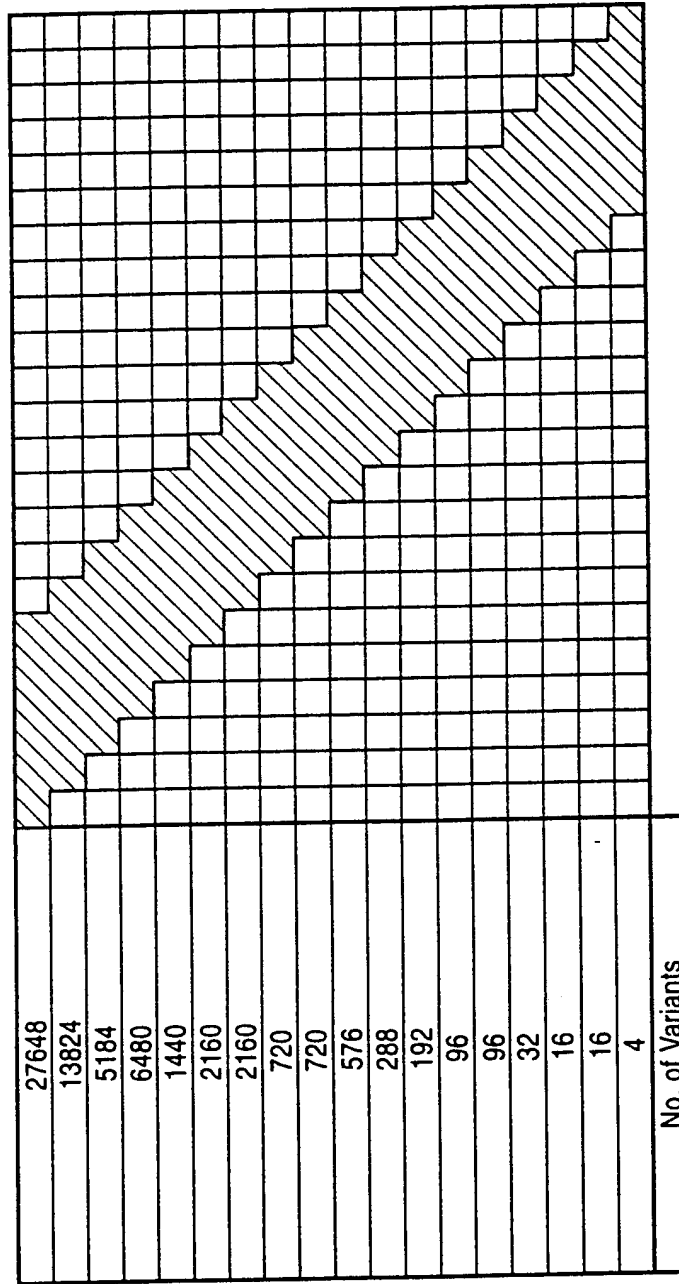


Fig. 15

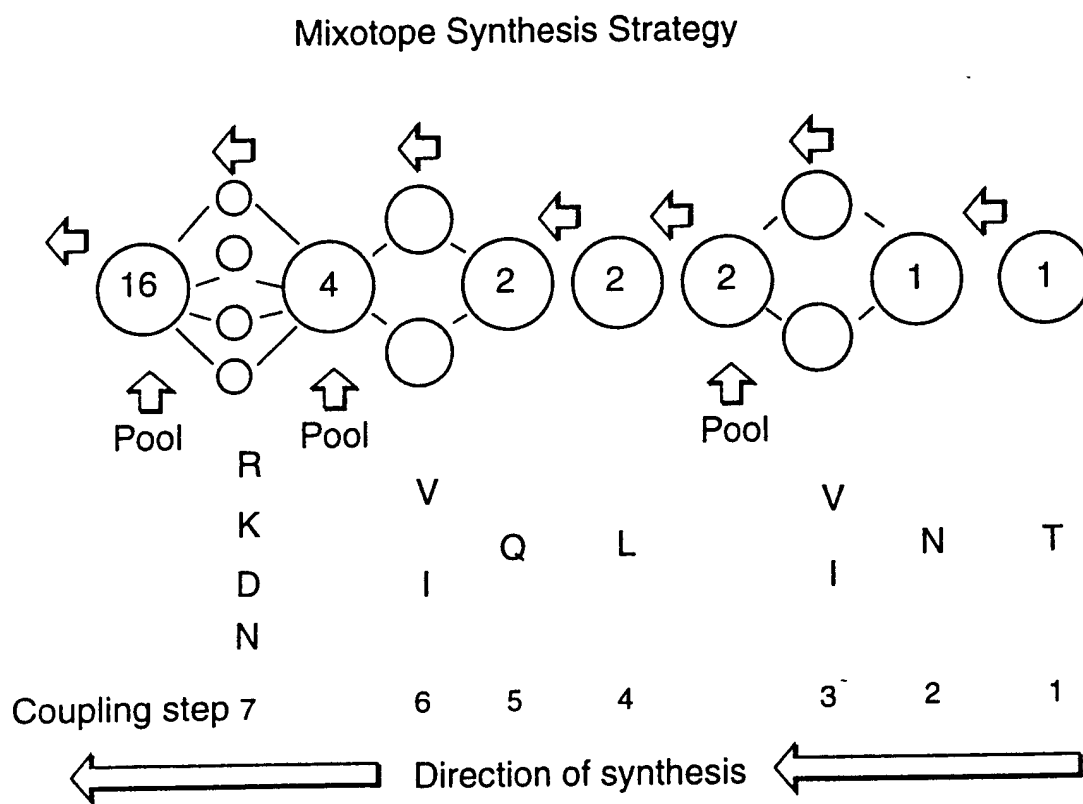


Fig. 16A

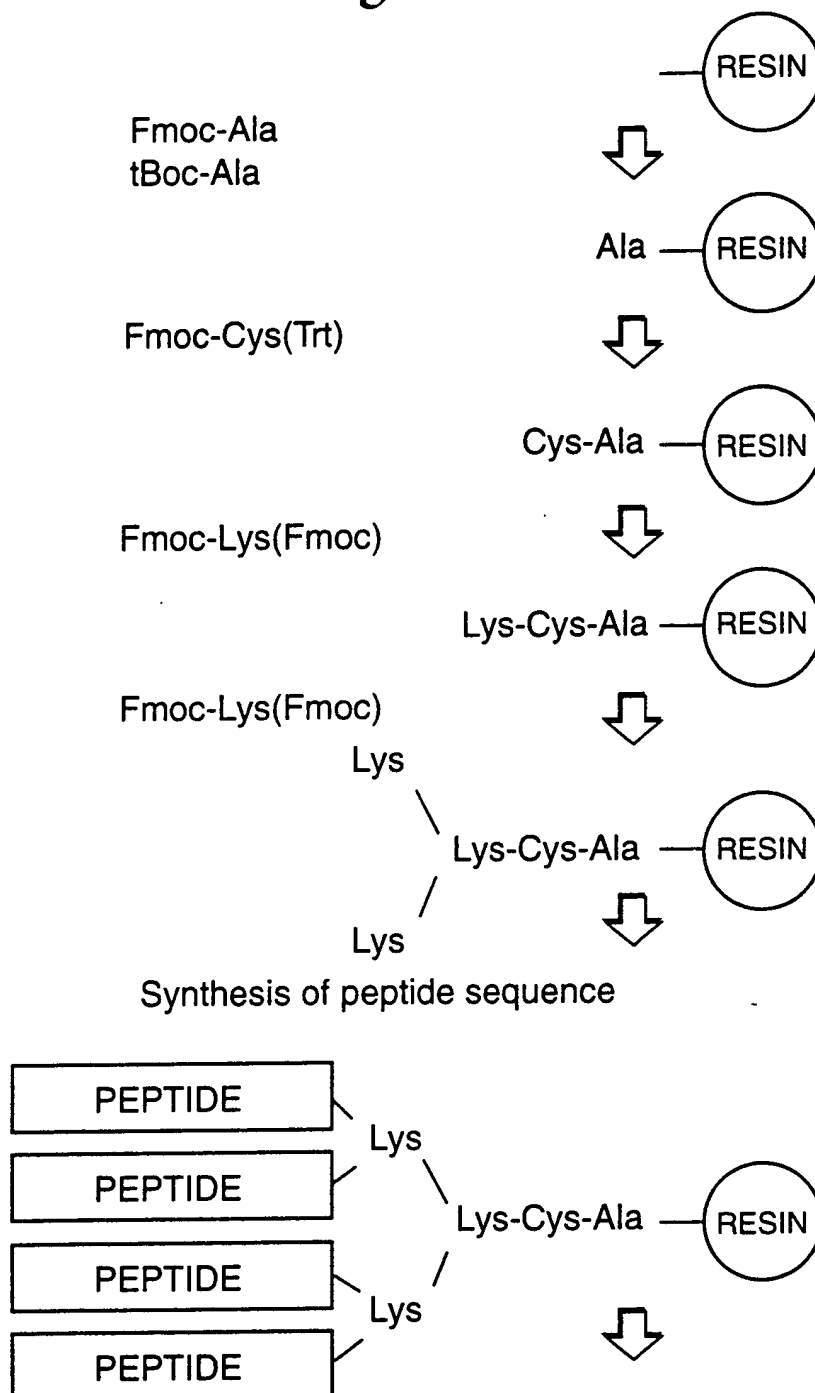
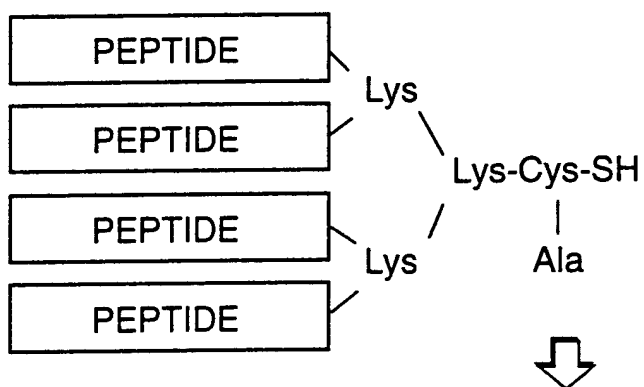
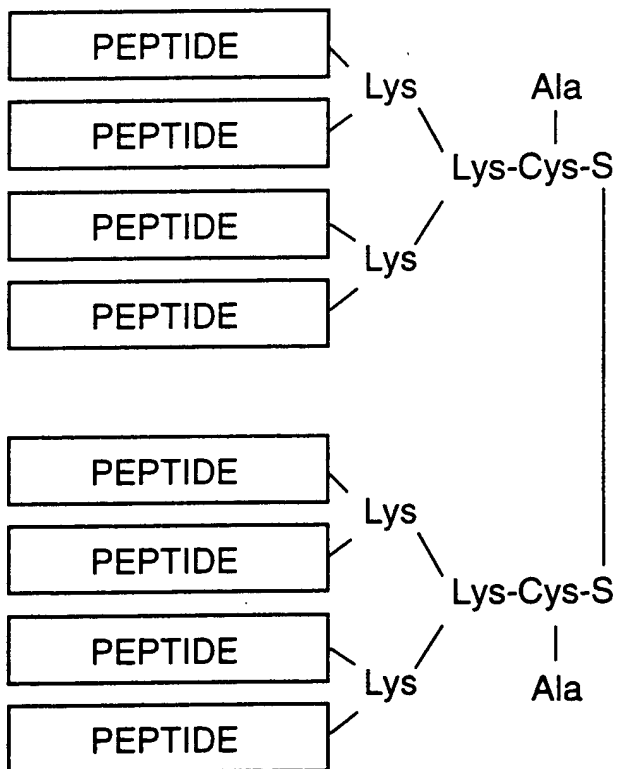


Fig. 16B

Cleavage and side-chain deprotection



Oxidation and dimerization



BBI ANTI-HTLV I/II MIXED TITER PERFORMANCE PANEL PRP302

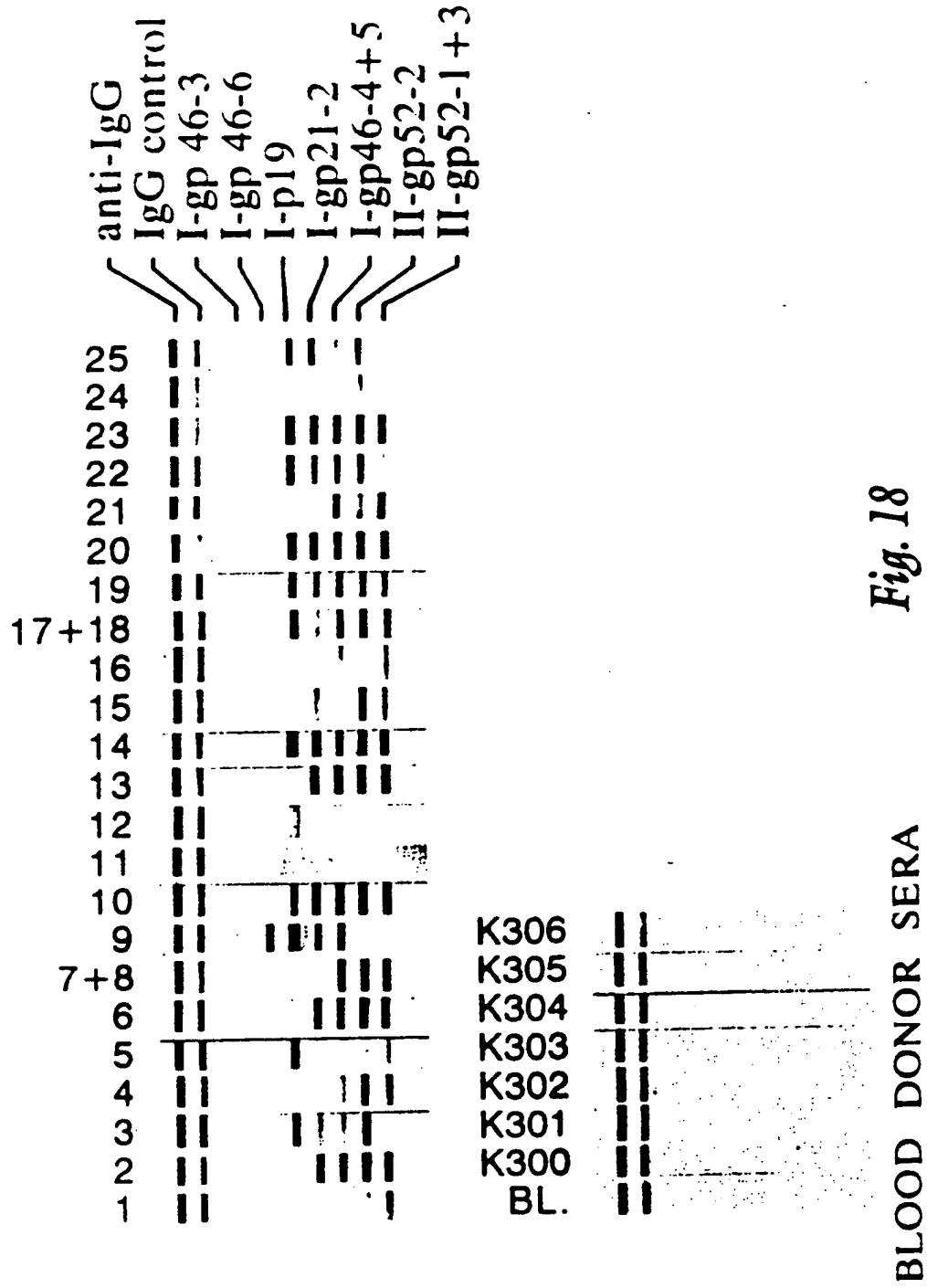


Fig. 17A

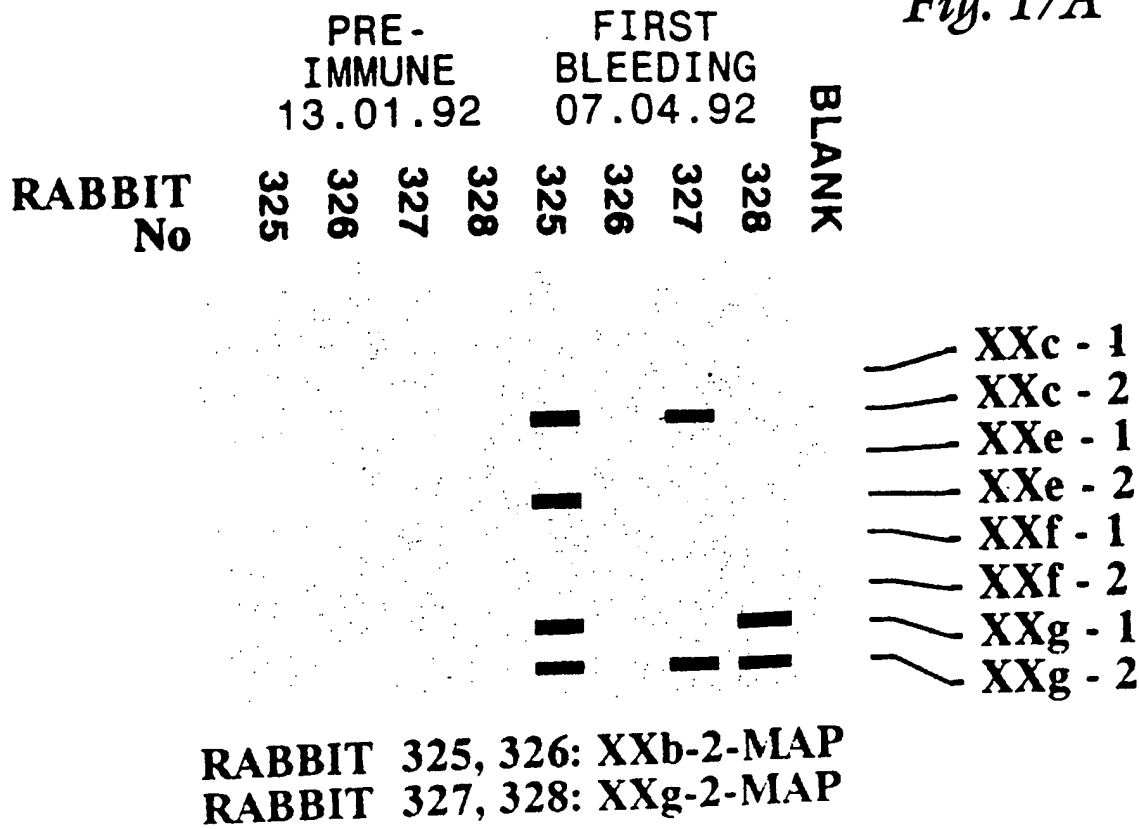


Fig. 17B

